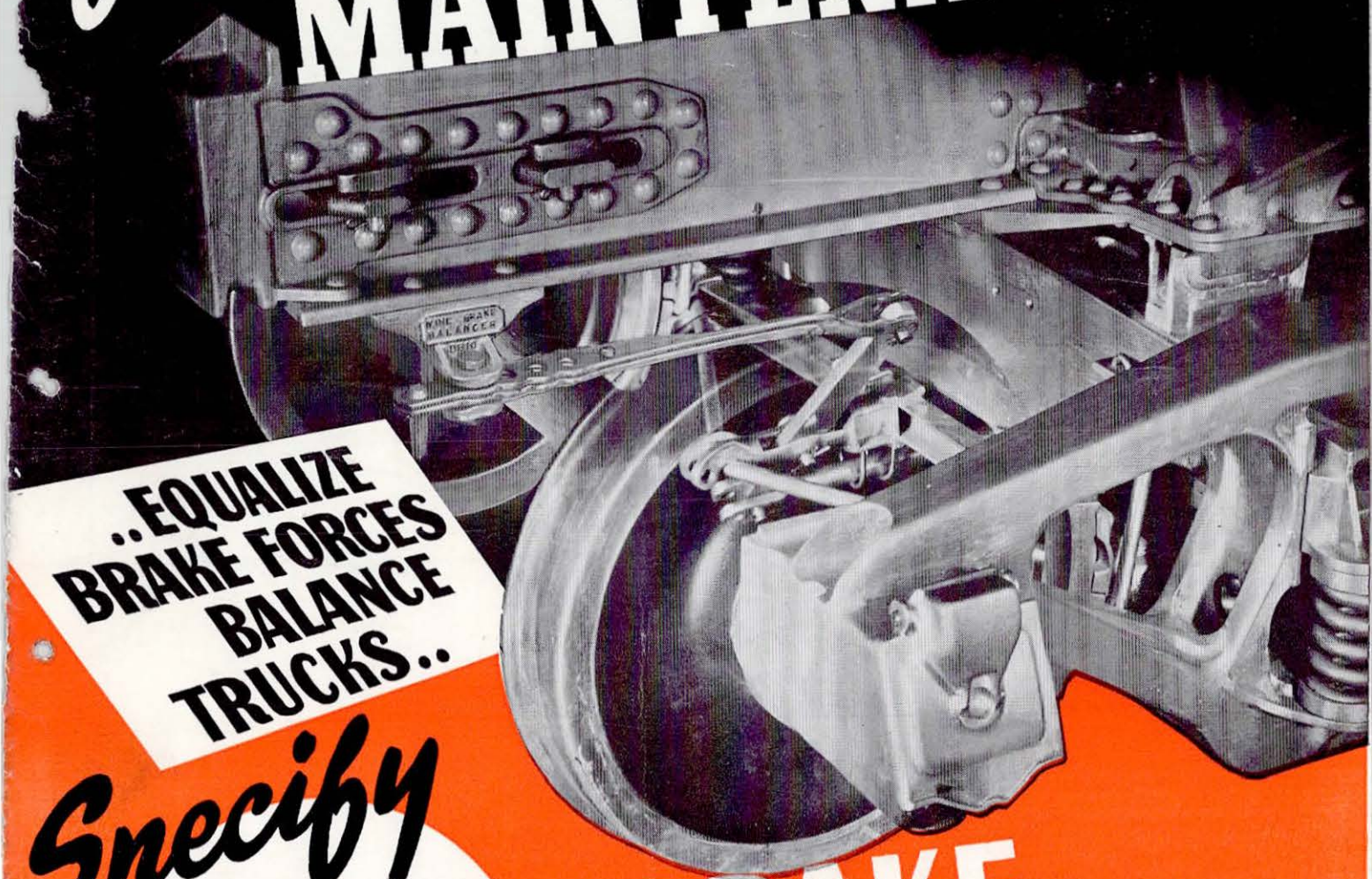
DECEMBER 7, 1946

Editorial Contents, page 45

Railway Age

Founded in 1856

for LOWER *truck* MAINTENANCE..



..EQUALIZE BRAKE FORCES BALANCE TRUCKS..

Specify WINE BRAKE BALANCER

THE WINE RAILWAY APPLIANCE CO.
TOLEDO, OHIO

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 50 cents each. Vol. 121, No. 23.

Mayari R Sides ...ADDING LIFE TO 400 GONDOLAS

One of 400 gondolas recently built with side sheets of Mayari R. Sheets are ¼ in. thick.

Side sheets of Mayari R steel are going into 400 gondola cars recently built for the Chicago, St. Paul, Minneapolis and Omaha Railway Company.

Mayari R was specified because it has greater resistance than carbon steel to (1) corrosion, (2) abrasion, (3) piercing and battering. It was used specifically for side sheets because this part of a gondola body is generally subject to greatest punishment and is usually the first to require repair or replacement. Thus lower maintenance costs and longer car-life can be expected through the use of Mayari R.

Mayari R has other properties of equal advantage to car designers. It is a low-alloy, high-strength steel, with almost double the yield point of carbon steel. Wherever weight-reduction is essential Mayari R can be used in lighter gages and sections without compromising strength.

Moreover, Mayari R is no more difficult to work than carbon steel. It forms, welds and fabricates readily with the usual shop equipment.

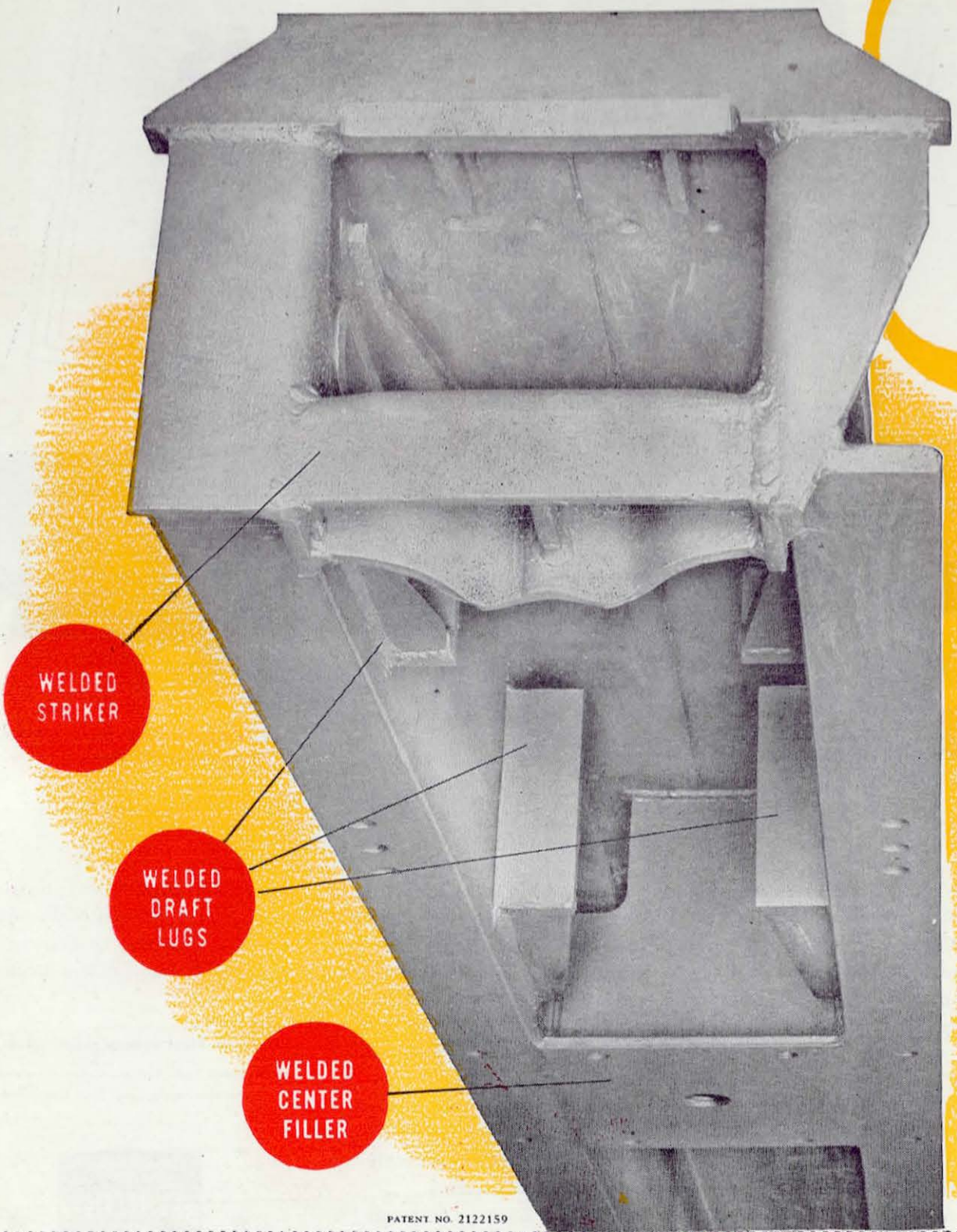
If you are interested in longer life, lower maintenance or dead-weight reduction in your rolling equipment, investigate Mayari R. New catalog giving more detailed information and showing a variety of railway applications will be supplied on request. Write or phone.

Bethlehem Steel Company, Bethlehem, Pa.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation

★ BETHLEHEM STEEL ★

Mayari R *makes it stronger...longer lasting*



PATENT NO. 2122159

Pullman-

CHICAGO • NEW YORK

THIS *Pullman-Standard*

FREIGHT CAR DRAFT SILL

stays tight

- **Pullman-Standard welded bolster center fillers, draft lugs and strikers are permanently tight.**
- **Damage to car structures and trucks often resulting from loose rivets is definitely prevented.**
- **Draft gears are held firmly in place.**
- **Has been specified for more than 51,000 freight cars.**

Experience with cars now in service, some built more than thirteen years ago, confirms Purdue University's findings that the strength of this welded construction is superior to that of conventional riveted construction. Proved also is the excellent quality of engineered welding by Pullman-Standard.

RAILROADS SEEKING THE BEST HAVE SPECIFIED THIS CONSTRUCTION REPEATEDLY. THE RECORD RECOMMENDS IT FOR YOUR CONSIDERATION

Standard CAR MANUFACTURING COMPANY

CLEVELAND · WASHINGTON, D. C. · PITTSBURGH · BIRMINGHAM · WORCESTER, MASS.

San Francisco Sales Representative, Mark Noble

What's the Best Way to Repair...

The answer depends on whether they're cast steel or cast iron.

FOR CAST STEEL, *Airco railroad technical men recommend arc welding because excellent results are obtained with less preheat and the rate of deposition of the weld metal using Airco No. 78E Electrodes is faster.*

FOR CAST IRON, *either gas welding or brazing using Airco Nos. 20 or 22 Bronze Rods is advisable, depending on nature and location of the break, shop facilities and preferences of those in charge.*

These recommendations are based on experience covering hundreds of cylinder repair jobs supervised by Airco technical men for various railroads, and the results of numerous experiments and tests in Airco laboratories.

Airco can make such unbiased recommendations because Airco furnishes equipment and supplies for both oxyacetylene flame processes and arc welding.

For illustrated description of modern methods of repairing broken cylinders — and performing dozens of other maintenance jobs, see Airco's new 52-page picture book "Oxyacetylene Flame Processes and Arc Welding in Railway Mechanical Work." It's free; mail the coupon for your copy. Write: Air Reduction, 60 E. 42nd St., New York 17, N. Y. In Texas: Magnolia Airco Gas Products Company, Houston 1, Texas.

RA
AIR REDUCTION
60 East 42nd Street
New York 17, N. Y.

Send me your booklet: "Oxyacetylene Flame Processes and Arc Welding in Railroad Mechanical Work."

Firm_____

Signed by_____

Address_____

City_____ Zone____ State_____

AIRCO **AIR REDUCTION**
Offices in All Principal Cities

Costs Come Down Under the Airco Plan

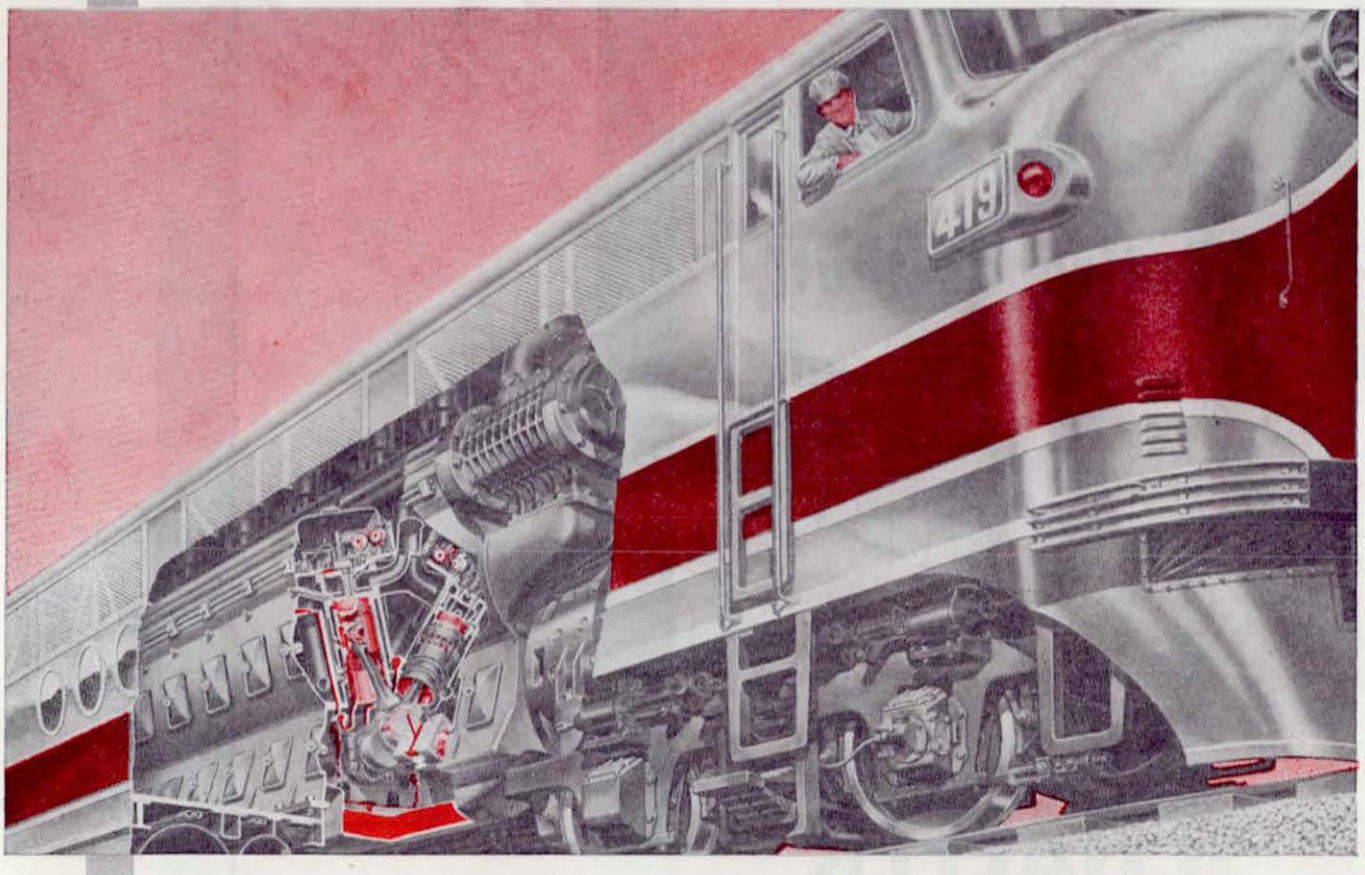
Join the Parade

Forged from quality carbon steel, oil quenched at the correct temperature, our hangers are uniform both in strength and in resistance to wear. We are equipped to meet your varied hanger requirements. Specify Schaefer.

Schaefer

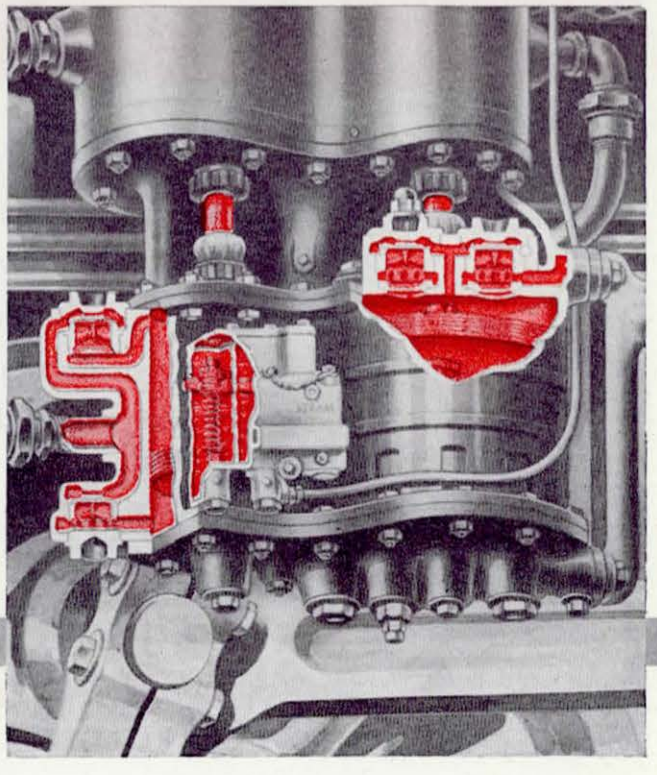
SCHAEFER EQUIPMENT COMPANY • • • KOPPERS BLDG. PITTSBURGH, PA.

Setting the Pace



Special Oils for Steam-Driven Air-Pumps!

Specially developed for air-pump service, Socony-Vacuum Oils give maximum resistance to the formation of deposits. They keep valves clean, protect pistons, rings and cylinders against wear.



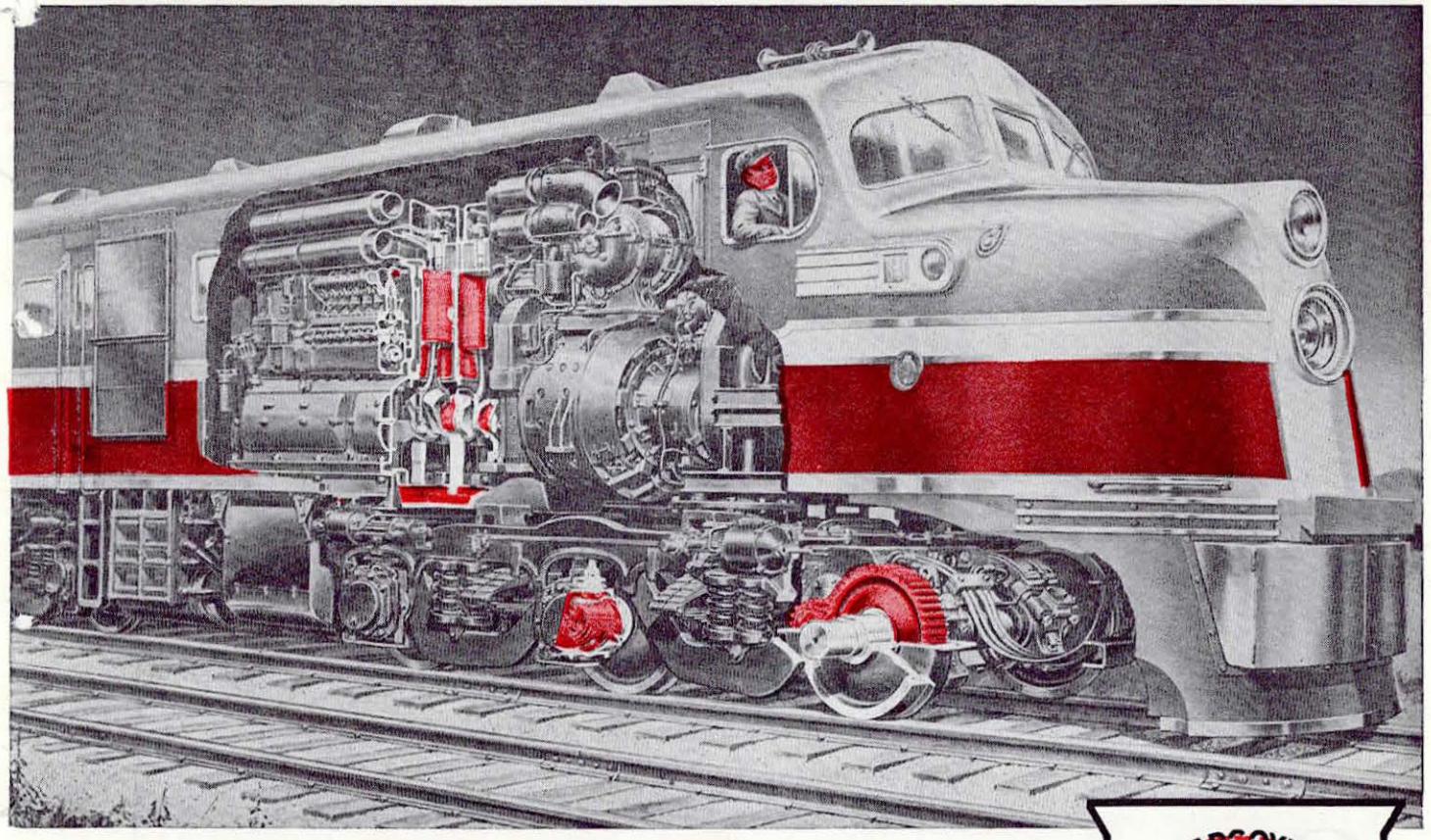
for Progress!

Socony-Vacuum Lubricants Help Keep Railroad Diesels on the Job—Assure Maximum Performance!

MATCHING the railroad progress represented by these big Diesel-Electric Locomotives, Socony-Vacuum offers lubricants specially developed to assure continuous peak performance and maximum protection against wear.

Proved in the toughest kind of service, Socony-Vacuum Oils now are recognized as outstanding lubricants for the power plants of all types of Diesel locomotives. Their unusual stability enables them to stand up under the most severe operating conditions. They resist the formation of deposits, keep valves and rings operating freely, and maintain their rich lubricating qualities over long periods. They form strong films that resist rupture under high pressures, protecting highly stressed parts against destructive friction and wear.

Other Gargoyle lubricants provide maximum protection for driving motor pinions and gears, and for all other equipment. Rely on Socony-Vacuum for Correct Railroad Lubrication!



SOCONY-VACUUM OIL CO., INC.

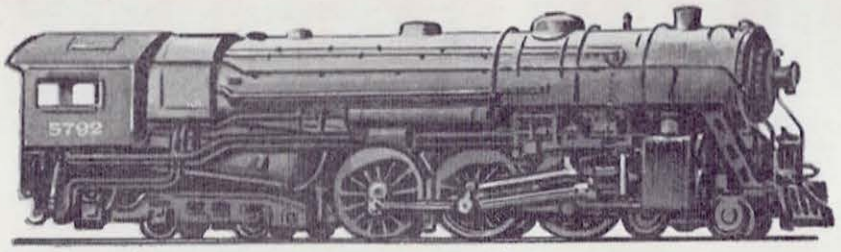
GARGOYLE

Railroad Lubricants

and Affiliates: Magnolia Petroleum Company, General Petroleum Corporation

Tune in THE MOBILGAS PROGRAM—Monday Evenings, 9:30 E.S.T.—NBC

MILLIONS TO



+

HOW MUCH TO

Compared with the millions of dollars spent to purchase, equip, maintain and operate locomotives, the cost of stopping trains is relatively insignificant.

Good brake shoes play a major part in every stopping operation. Penny-wise brake shoe selection, therefore, may prove dollar-foolish. A good plan is to talk with an American Brake Shoe engineer and find out what is best for your service. The American Brake Shoe Company, 230 Park Avenue, New York 17, N. Y.

4870

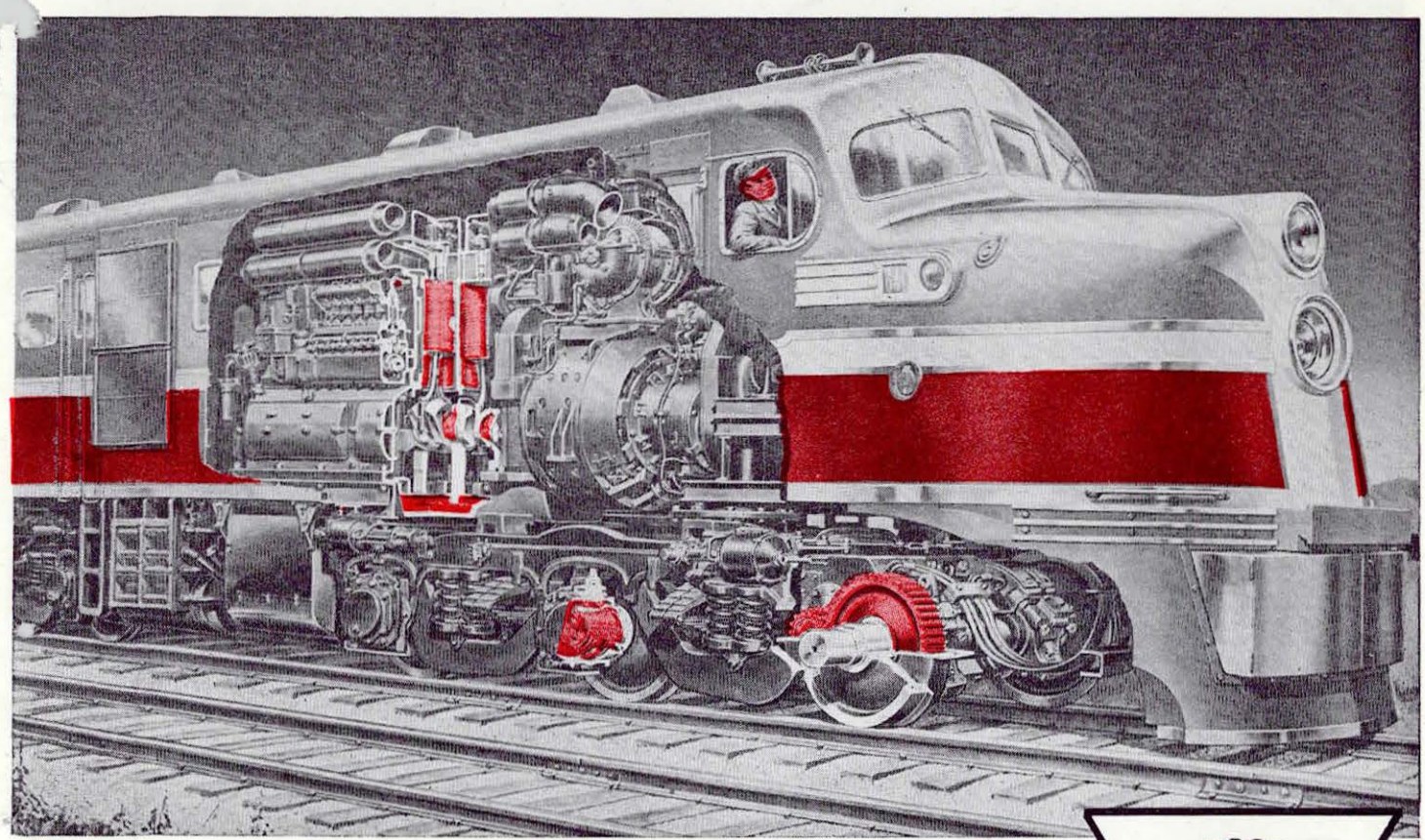
for Progress!

Socony-Vacuum Lubricants Help Keep Railroad Diesels on the Job—Assure Maximum Performance!

MATCHING the railroad progress represented by these big Diesel-Electric Locomotives, Socony-Vacuum offers lubricants specially developed to assure continuous peak performance and maximum protection against wear.

Proved in the toughest kind of service, Socony-Vacuum Oils now are recognized as outstanding lubricants for the power plants of all types of Diesel locomotives. Their unusual stability enables them to stand up under the most severe operating conditions. They resist the formation of deposits, keep valves and rings operating freely, and maintain their rich lubricating qualities over long periods. They form strong films that resist rupture under high pressures, protecting highly stressed parts against destructive friction and wear.

Other Gargoyle lubricants provide maximum protection for driving motor pinions and gears, and for all other equipment. Rely on Socony-Vacuum for Correct Railroad Lubrication!



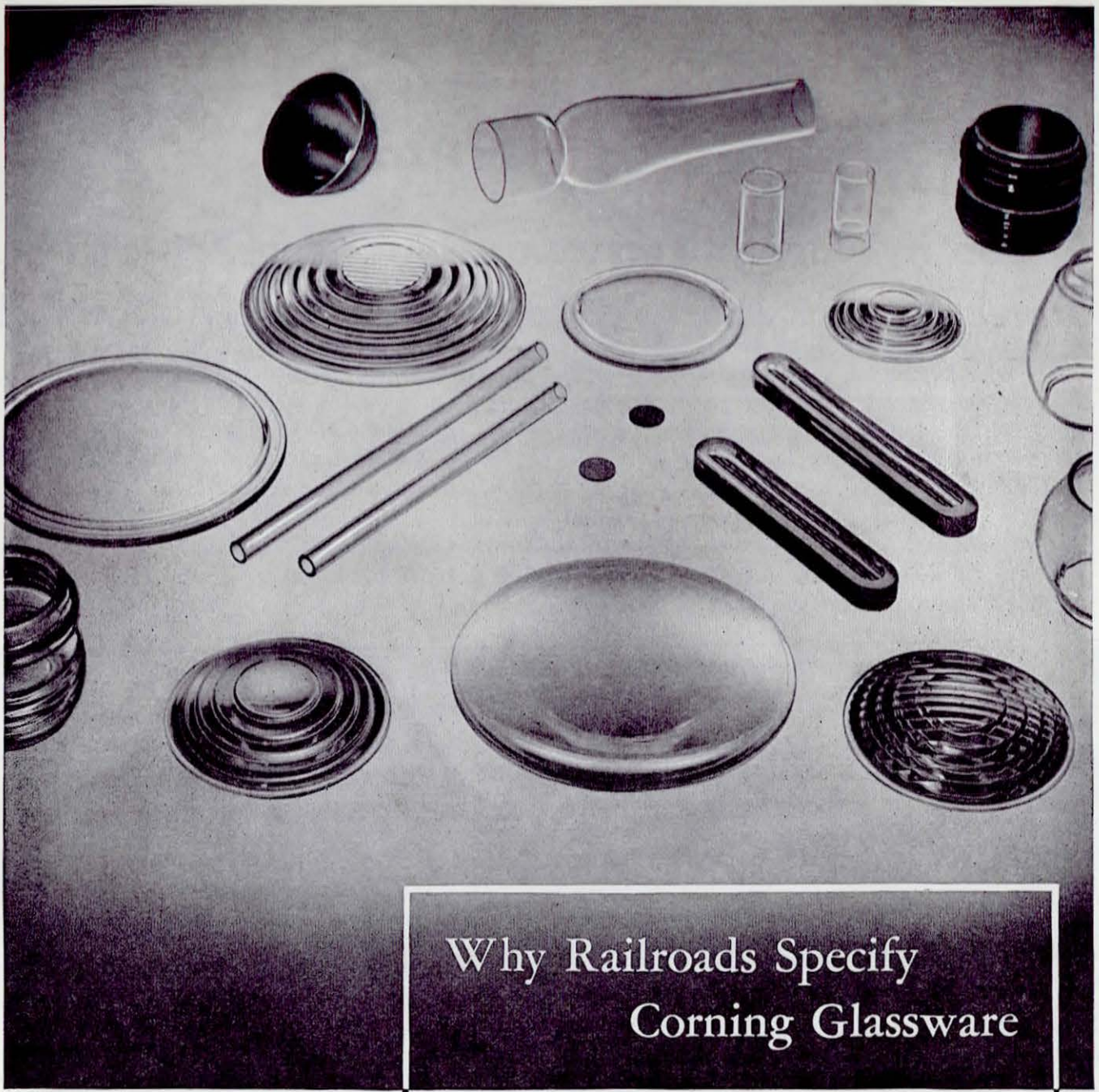
SOCONY-VACUUM OIL CO., INC.

GARGOYLE

Railroad Lubricants

and Affiliates: Magnolia Petroleum Company, General Petroleum Corporation

Tune in THE MOBILGAS PROGRAM—Monday Evenings, 9:30 E.S.T.—NBC



Why Railroads Specify Corning Glassware

Since the early days of railroading, Corning has pioneered the development of lens design and color controls. Present standards, for example, are based on the cooperative efforts of the AAR Signal Section, Bureau of Standards and Corning's Research Laboratory. It's no wonder that railroads specify Corning.

The engineering skills, manufacturing "know-how" and production facilities resulting from this cooperation assure you of the best in Railroad Glassware. That's why . . . *Safety depends on Signal Glassware, Railroads depend on* CORNING. *Corning Glass Works, Corning, N. Y.*

SALES OFFICES IN NEW YORK, CHICAGO AND SAN FRANCISCO

"CORNING" is a registered trade-mark and indicates manufacture by Corning Glass Works, Corning, N.Y.

CORNING
means
Research in Glass

Name the DRYING SPEED... Red Lead can meet it

Through the years, Red Lead's effectiveness in fighting rust has won it general acceptance by industry as the standard for metal protection.

Perhaps less generally known, however, is that Red Lead's *extra* protection is available in an extensive range of paint formulations to give you the drying speed you need.

This wide choice is due to Red Lead's compatibility with the many types of paint vehicles in use today. It can be combined with the new synthetic resins, modified synthetics, natural resins, drying oils and other vehicles.

So, whether painting schedules demand quick drying, or whether normal drying time is permitted, remember, you can take full advantage of the plus protection that has made Red Lead famous.

Why RED LEAD Means Extra Rust Protection

Red Lead has the property of counteracting acid conditions, recognized as accelerators of rust. In the presence of various acids, Red Lead forms insoluble lead salts at the approximate rate at which the acids are supplied.

This is true whether the acid originates from acid-forming environments, such as gas, smoke and moisture in the atmosphere, or from the decomposition of the vehicle. Thus, a rust-inhibiting condition is maintained with a Red Lead paint.

Red Lead also forms an adherent protective shield which prevents electro-chemical action, another prime cause of rusting.

Specify RED LEAD for All Metal Protective Paints

The value of Red Lead as a rust preventive is most fully realized in a metal paint where it is the only pigment used. However, its rust-resistant properties are so pronounced that it also improves any multiple pigment paint.

No matter what price you pay, you'll get a better paint for surface protection of metal, if it contains Red Lead.

Write for New Booklet—"*Red Lead in Corrosion Resistant Paints*" is an up-to-date, authoritative guide for those responsible for specifying and formulating paint for structural iron and steel. It describes in detail the scientific reasons why Red Lead gives superior protection. It also includes typical specification formulas – ranging from Red Lead-Linseed Oil paints to Red Lead-Mixed Pigment-Varnish types. If you haven't received your copy, address nearest branch listed below.

NATIONAL LEAD COMPANY: New York 6; Buffalo 3; Chicago 80; Cincinnati 3; Cleveland 13; St. Louis 1; San Francisco 10; Boston 6, (National Lead Co. of Mass.); Philadelphia 7, (John T. Lewis & Bros. Co.); Pittsburgh 30, (National Lead Co. of Pa.); Charleston 25, W. Va., (Evans Lead Division.)

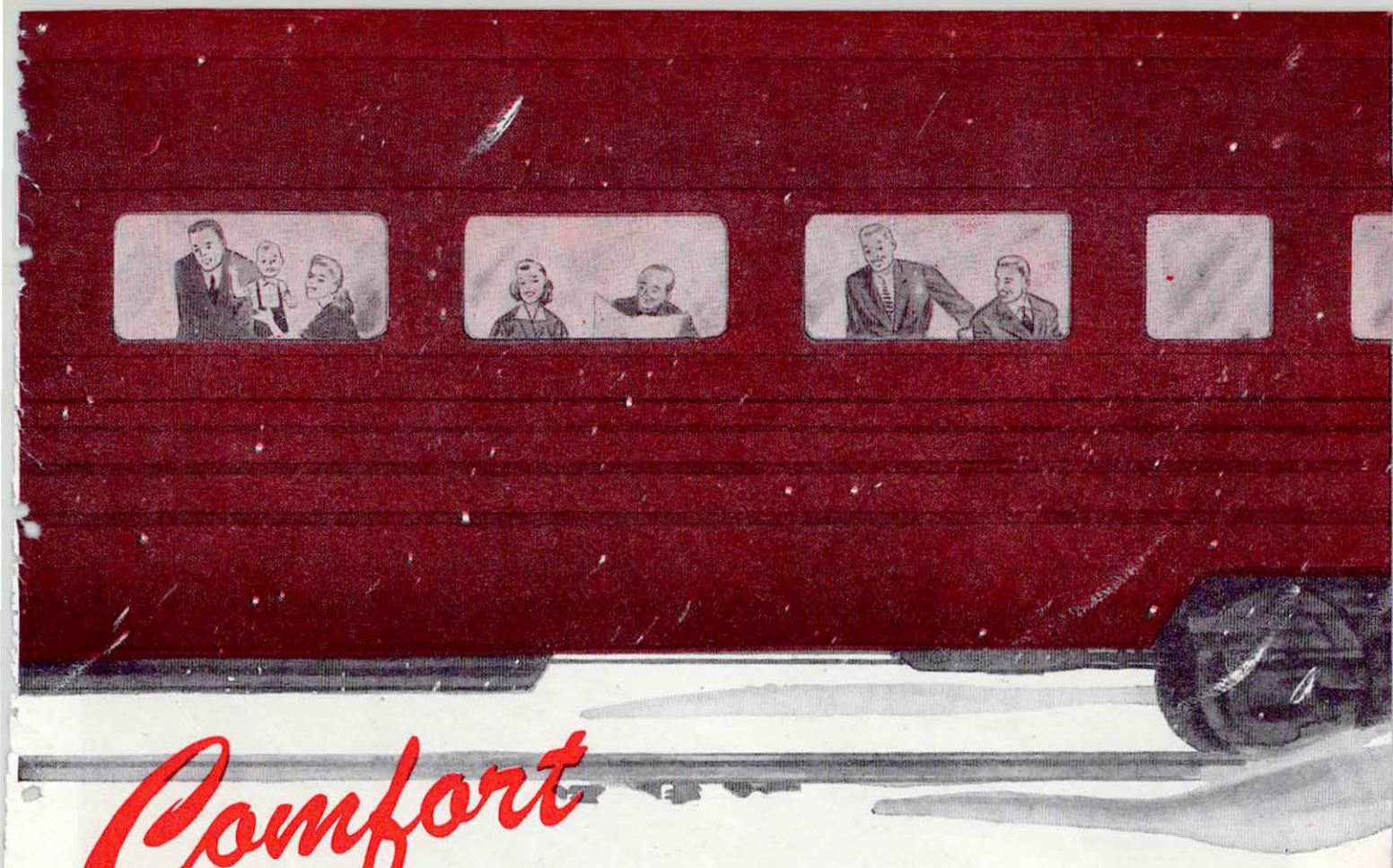
Dutch Boy
Reg. U.S. Pat. Off.
Red Lead

UNION ASBESTOS

MEANS PROGRESS IN INSULATION AND PACKING

AND RUBBER CO.

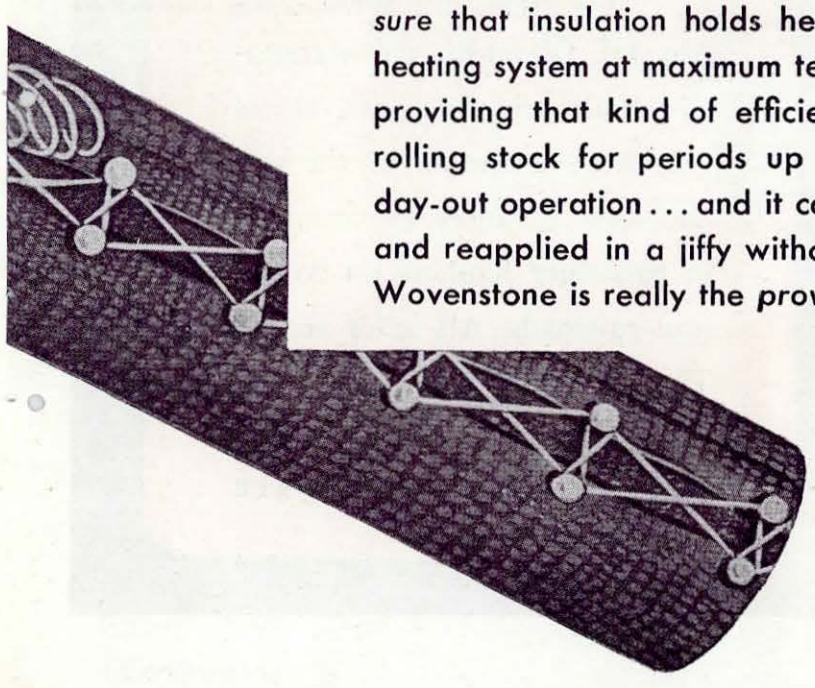
332 S. MICHIGAN AVENUE CHICAGO 4,



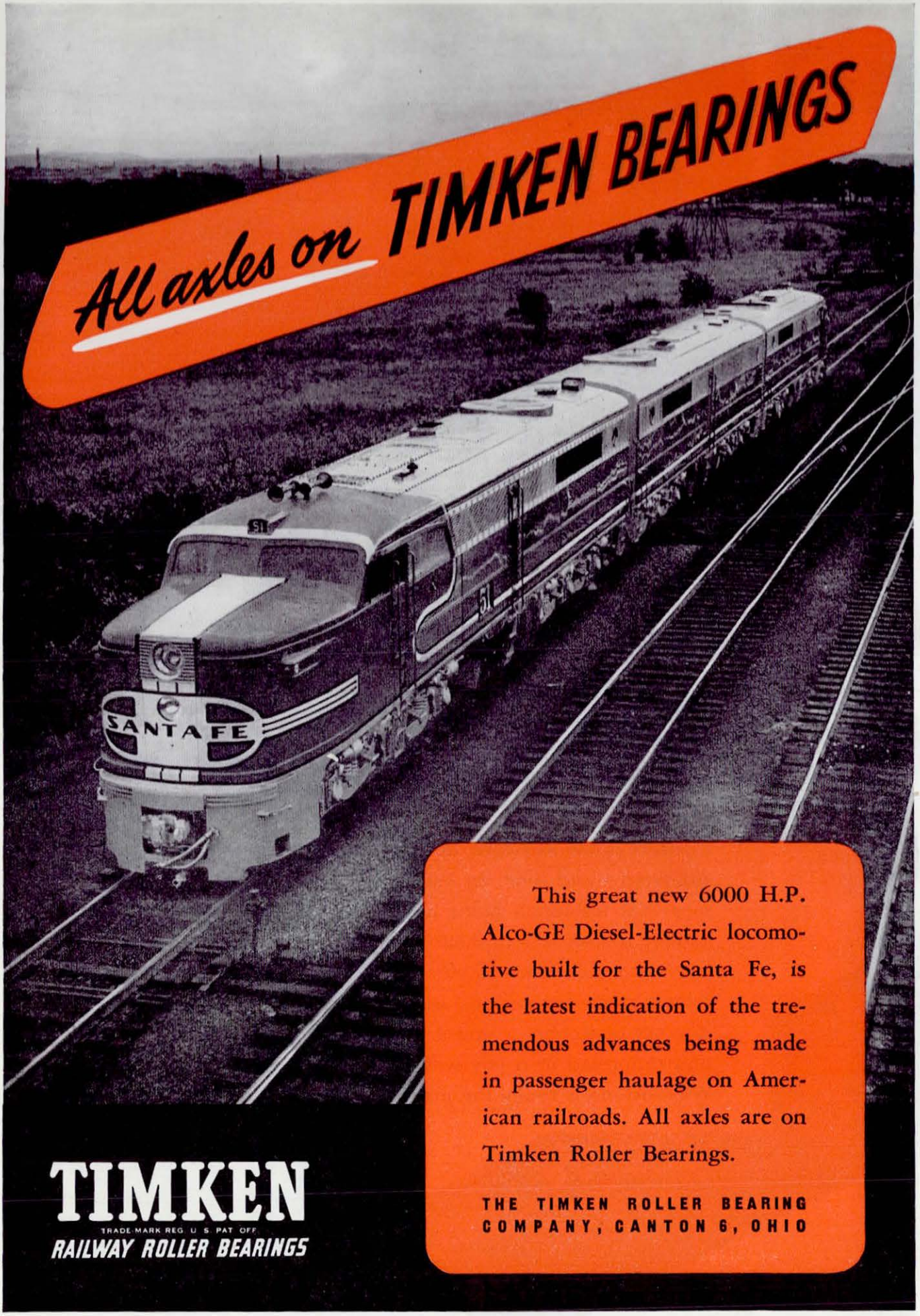
Comfort

begins OUTSIDE the car when steam pipes are COVERED by WOVENSTONE!

Comfort is the keystone upon which revenues are going to be sustained—and built. To assure maximum comfort, you must be *sure* that insulation holds heat in—delivers steam to the car heating system at maximum temperatures. Wovenstone has been providing that kind of efficient, economical service—on much rolling stock for periods up to 12 years of continuous day-in, day-out operation . . . and it can be removed for pipe inspection and reapplied in a jiffy without loss of original efficiency. Yes, Wovenstone is really the *proven* insulation!



ILLINOIS • NEW YORK • SAN FRANCISCO



This great new 6000 H.P. Alco-GE Diesel-Electric locomotive built for the Santa Fe, is the latest indication of the tremendous advances being made in passenger haulage on American railroads. All axles are on Timken Roller Bearings.

THE TIMKEN ROLLER BEARING COMPANY, CANTON 6, OHIO

TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
RAILWAY ROLLER BEARINGS

BUILDINGS AND BUILDING MANAGEMENT

Substitute Management

In talking with building managers about their problems and policies, we occasionally encounter managers who seem to take pride in knowing very little about the physical operation of their properties. The inference, presumably, is that they are personally too important to know much about such things as maintenance, rehabilitation and repairs.

Were this attitude less common, it might be laughed off as an amusing pose intended to impress visitors, but it is too widespread to be dismissed so lightly, and it seems to be spreading. Perhaps this is perfectly natural. It is hard to get very excited about efficient operation and tenant service when buildings are full, and resentful tenants have nowhere to go. It is much easier to sit back and let someone else operate the building, and that's exactly what many building managers seem to be doing.

They have forgotten, apparently, that efficient operation is the chief difference between building management and real estate brokerage. Any broker could rent space and collect rents in today's market, but most brokers would have difficulty in operating buildings successfully. That's why owners hire professional building managers. Otherwise, a real estate broker would do just as well, and be less expensive.

Actually, of course, a sound personal knowledge of building operation is one of the building manager's best tools in making buildings profitable. No one expects a building manager to know how to repair an elevator or build a wall or even mop a floor. That's not his job, but he almost certainly won't go far in his profession *unless he knows whether or not such work is being done properly, and whether or not his costs are in line with comparable costs in other buildings.* That is his job, and no one can do it for him.

Any building manager is, of course, thoroughly justified in delegating routine operating authority to competent subordinates — to the building superintendent, the chief engineer and others whose technical knowledge qualifies them to be department heads. But the manager who then sits back and lets these subordinates make operating policy decisions for him is flirting with serious trouble for himself, his owners and the properties under his supervision.

There is no satisfactory substitute for the building manager's brains, or for his ability to make sound operating decisions on the basis of his own knowledge. That's why he is the manager. To forget that is to invite someone else to operate his buildings in his place.

Shaileen McCaleb

Reproduced by permission from the September issue of Buildings and Building Management

OUR SENTIMENTS EXACTLY.. *Mr. McCaleb!*

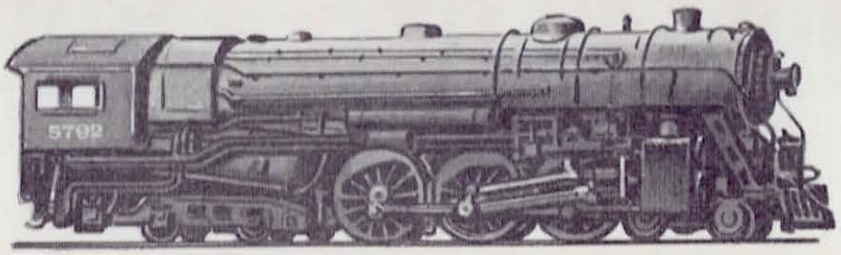
Elevator Maintenance by the Manufacturer . . .
What better assurance of proper workmanship?

Standard rates now in effect on 30,000 elevators
What better assurance that costs are in line?

Maintenance by Otis, for Otis elevators, is available at a flat monthly rate through your local Otis Elevator Company office.

Otis
ELEVATOR COMPANY
OFFICES IN ALL PRINCIPAL CITIES

MILLIONS TO



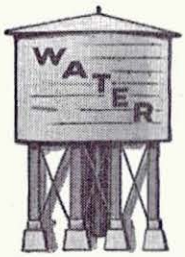
+

HOW MUCH TO

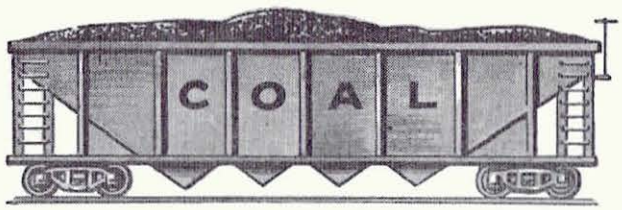
Compared with the millions of dollars spent to purchase, equip, maintain and operate locomotives, the cost of stopping trains is relatively insignificant.

Good brake shoes play a major part in every stopping operation. Penny-wise brake shoe selection, therefore, may prove dollar-foolish. A good plan is to talk with an American Brake Shoe engineer and find out what is best for your service. The American Brake Shoe Company, 230 Park Avenue, New York 17, N. Y.

MOVE THEM....



+



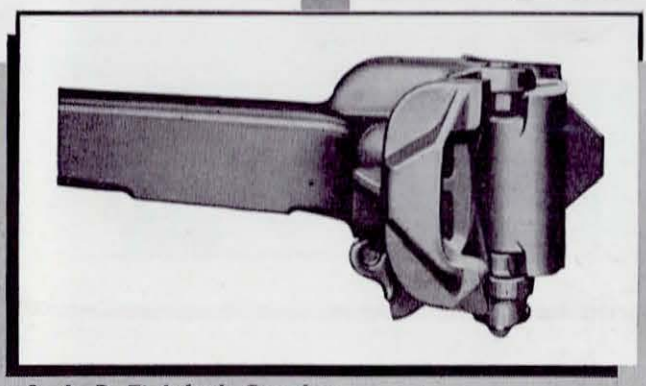
STOP THEM?

AMERICAN
Brake Shoe
COMPANY

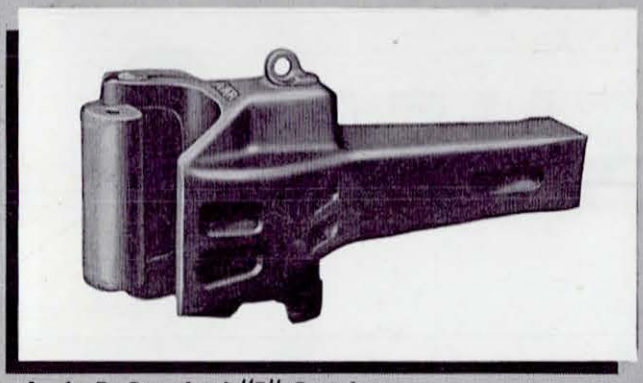
BRAKE SHOE AND CASTINGS DIVISION

engineered

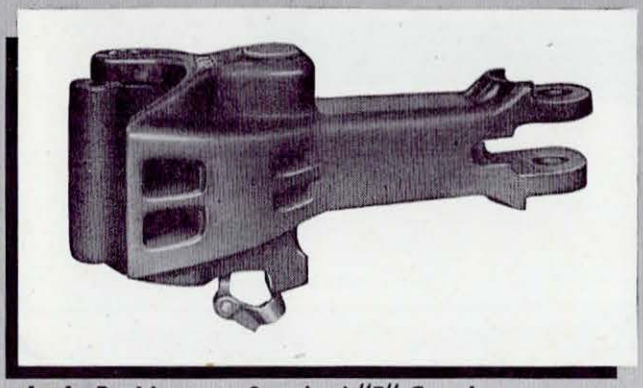
FOR SAFETY AND COMFORT



A. A. R. Tightlock Coupler



A. A. R. Standard "E" Coupler



A. A. R. Alternate Standard "E" Coupler

When you are buying couplers, remember that much of the progress toward added safety for cars and ladings has been marked by the ingenuity and forward thinking of *National* engineers.

This is also true of Tightlock Couplers which are bringing "armchair comfort" and new business to modern, high-speed passenger trains.

When you equip with couplers of *National* manufacture, you can depend upon advanced engineering throughout every stage of their design and production.

M&S Co

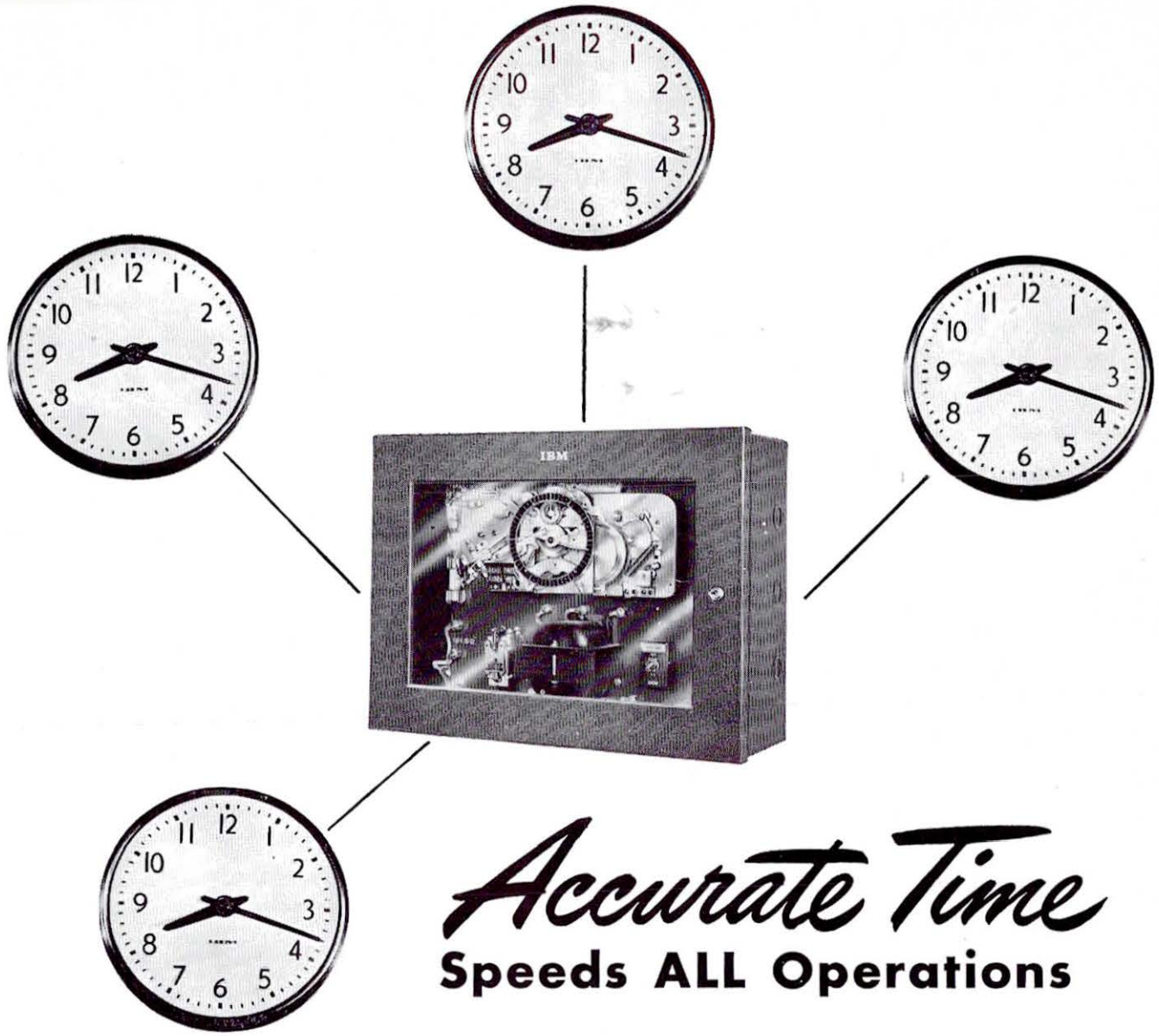
Established 1868

NATIONAL

MALLEABLE AND STEEL CASTINGS COMPANY

CLEVELAND, OHIO

SALES OFFICES: Cleveland, Chicago, New York, Philadelphia, Richmond, San Francisco, St. Louis • *WORKS:* Cleveland, Chicago, Indianapolis, Melrose Park, Ill., Sharon, Pa.



Accurate Time
Speeds ALL Operations

With the installation of an IBM Time Control and Time Indicating System, all operations can be keyed to the same accurate time.

Secondary clocks and connected time recording devices of all types are automatically self-regulated every hour by this IBM Master Time Control unit.

The latest model of this unit even provides reserve operating power for use in the event of power interruptions. The unit also automatically regulates the rate of the clock to agree with the frequency rate of the electrical supply used.

As an integral part of an IBM Time Control and Time Indicating System, this new unit automatically provides constant, accurate time year in and year out.

IBM

ELECTRIC TIME SYSTEMS AND TIME RECORDERS
ELECTRIC PUNCHED CARD ACCOUNTING MACHINES
AND SERVICE BUREAU FACILITIES
ELECTRIC TYPEWRITERS • PROOF MACHINES

International Business Machines Corporation, World Headquarters Building, 590 Madison Avenue, New York 22, N. Y.

MORE POWER.

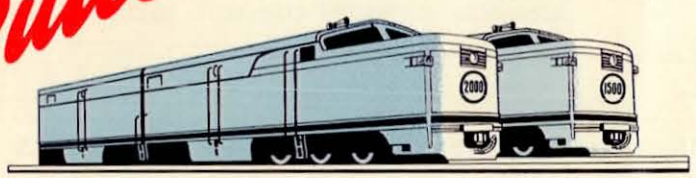
You'll see your way clear to higher earnings with the new "2000". Conservatively rated, this great passenger locomotive develops more horsepower per pound of weight than any comparable-rated diesel-electric on the rails today. Its single, 16-cylinder, turbosupercharged engine not only delivers a full 2000 hp for traction, but does it with ease.

Because the engine is never "pushed to the limit" to produce rated output, it operates within a range which permits maximum efficiency and minimum maintenance. Fuel and lubricating oil consumption rates are exceptionally low. You get more work from each motive-power unit . . . and at far less cost.

Exactly what savings can this locomotive effect in your passenger operations? Our engineers will be glad to co-operate with you in a motive-power survey which will tell you—in dollars-and-cents.

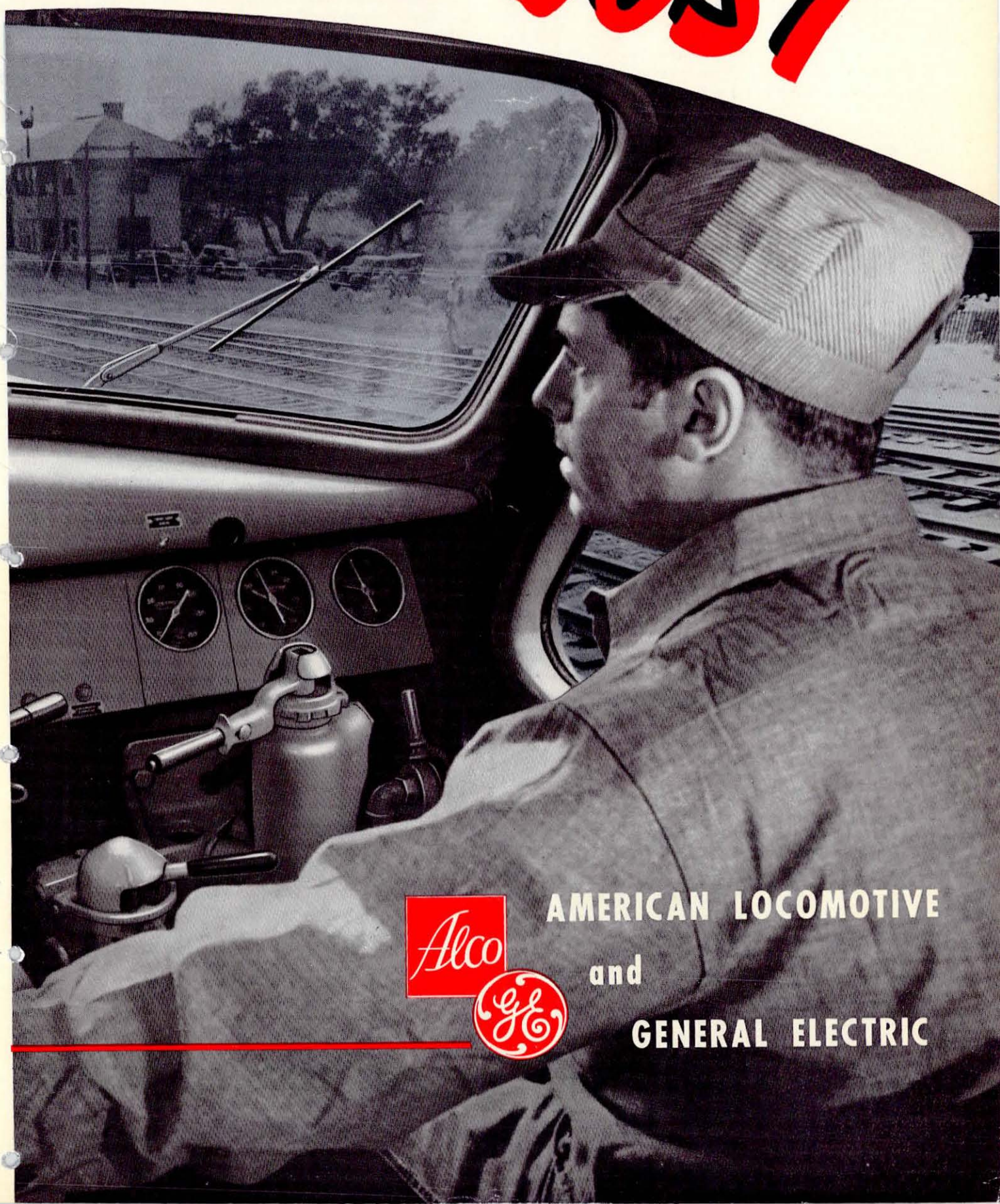
113-178-9680

Built



TO INCREASE RAILROAD EARNING POWER

..LESS COST



AMERICAN LOCOMOTIVE
and
GENERAL ELECTRIC

A QUICK WAY TO CHECK THE R.Q.* OF TRUCK SPRINGS

Here's how to make a quick, but conclusive, test of truck spring riding qualities. Select one of your tenders or auxiliary water tanks on which you can get a high-mileage test in a short time. We'll furnish instruments to make recordings (in co-operation with your engineers) of Riding Qualities (1) with your present springs and (2) with the same truck, equipped with the new Style C-200 Holland Volute Springs.

These springs make up a complete spring-nest unit—soft, long-travel, self-damping, suspension truck springs, which take the place of all the conventional helical springs, without any change in existing trucks.

*RIDING QUALITIES

New Holland
Ride-Ease
Volute Truck Spring
STYLE C-200

50-Ton Group for Cars and Tenders

Twice as Soft as the A.A.R. 1915 Spring

2¾" Travel

HOLLAND COMPANY
332 SOUTH MICHIGAN AVENUE, CHICAGO, ILLINOIS

1899

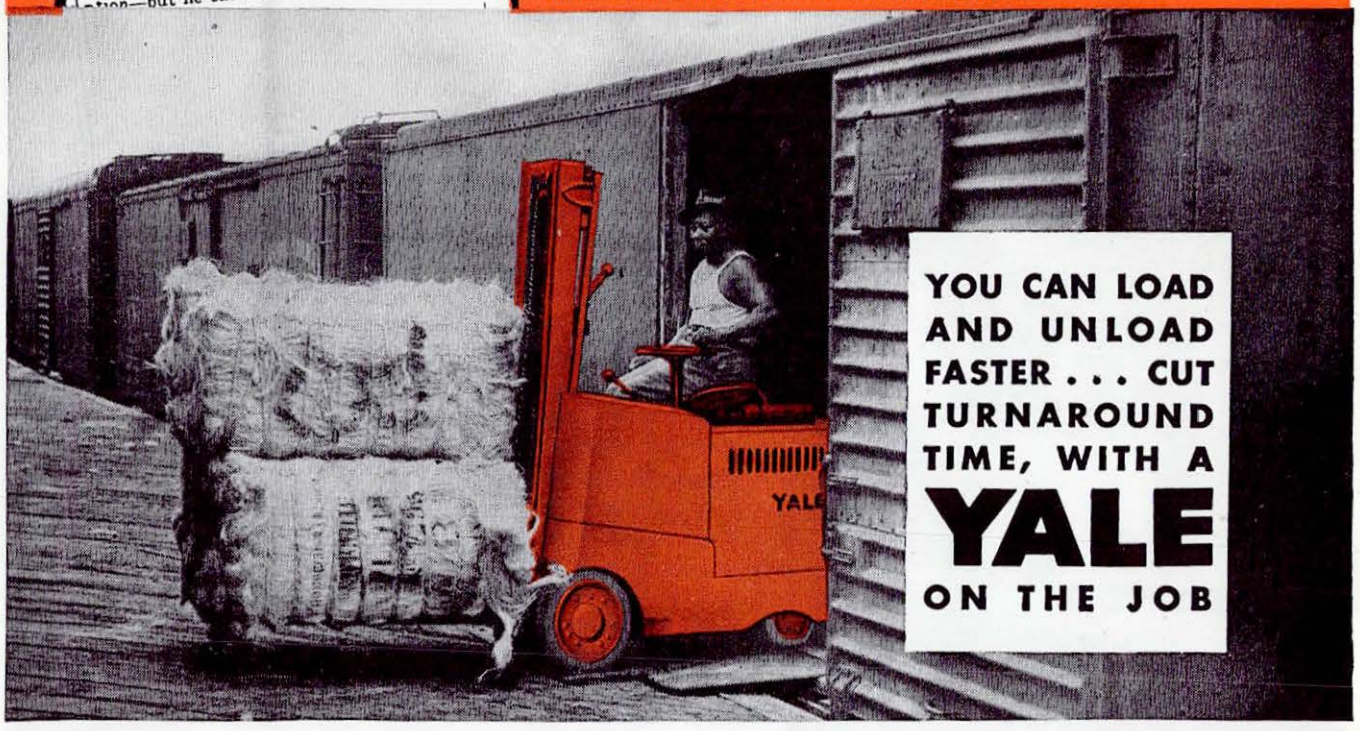
Supply of Freight Cars Better But Real Pinch Ahead, Says Johnson

O.D.T. Director States Shortage, Now About 20,000 a Week, May Reach 75,000 in November

WASHINGTON (AP)—O.D.T. Director J. Monroe Johnson reported a slight improvement in the railroad transportation situation—but he cautioned that the real pinch is

Freight Car Shortage Got You Worried?

REPRINTED FROM SEPT. 26, 1946, ISSUE WALL STREET JOURNAL



YOU CAN LOAD AND UNLOAD FASTER . . . CUT TURNAROUND TIME, WITH A YALE ON THE JOB

The shortage of freight cars in October was about 20,000 per week. It is predicted by the director of O. D. T. that this will jump to 75,000 per week. With the average turnaround time higher than it was before or during the war, plus a cut in earnings, railroads have a gargantuan task ahead.

One answer to your problem is faster, more efficient material handling. And that means Yale. For Yale, with a complete line of machinery, can cut your material handling costs per ton, reduce turnaround time considerably, help you load and unload faster, enable you to get more output per manhour.

Don't wait until the freight car shortage gets worse. Act now! Write, phone or telegraph the nearest Yale representative, or get in touch with us direct. We'll be glad to study your handling problems and make recommendations without obligation. The Yale & Towne Manufacturing Co., 4530 Tacony St., Philadelphia 24, Pennsylvania.

RAILWAY REPRESENTATIVES:

CHICAGO 1, ILL.
The Earl E. Thulin Co
Suite 339, Hotel Sherman

NEW YORK 17, N. Y.
Eastern Railway Supplies, Inc.
110 East 42nd St.

ST. PAUL 1, MINN.
Robert J. Wylie
612 Pioneer Bldg.

CLEVELAND 15, OHIO
C. E. Murphy
923 Midland Bldg.

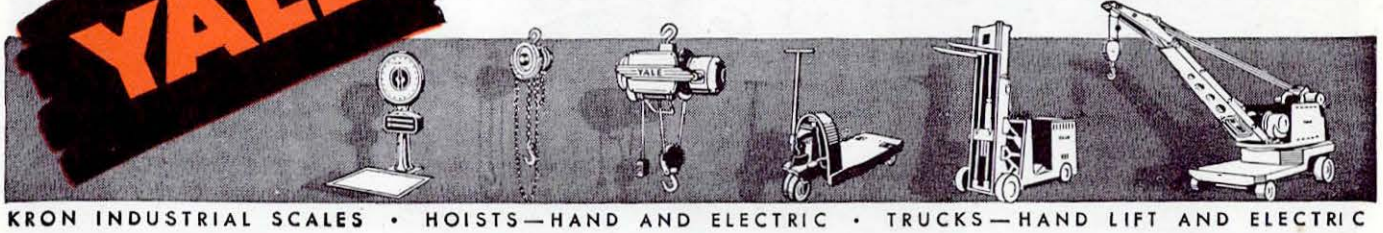
ST. LOUIS 1, MO.
Clarence Gush
Railway Exchange Bldg.

WASHINGTON 5, D.C.
Ralph W. Payne
Metropolitan Bank Bldg.

MATERIAL HANDLING MACHINERY

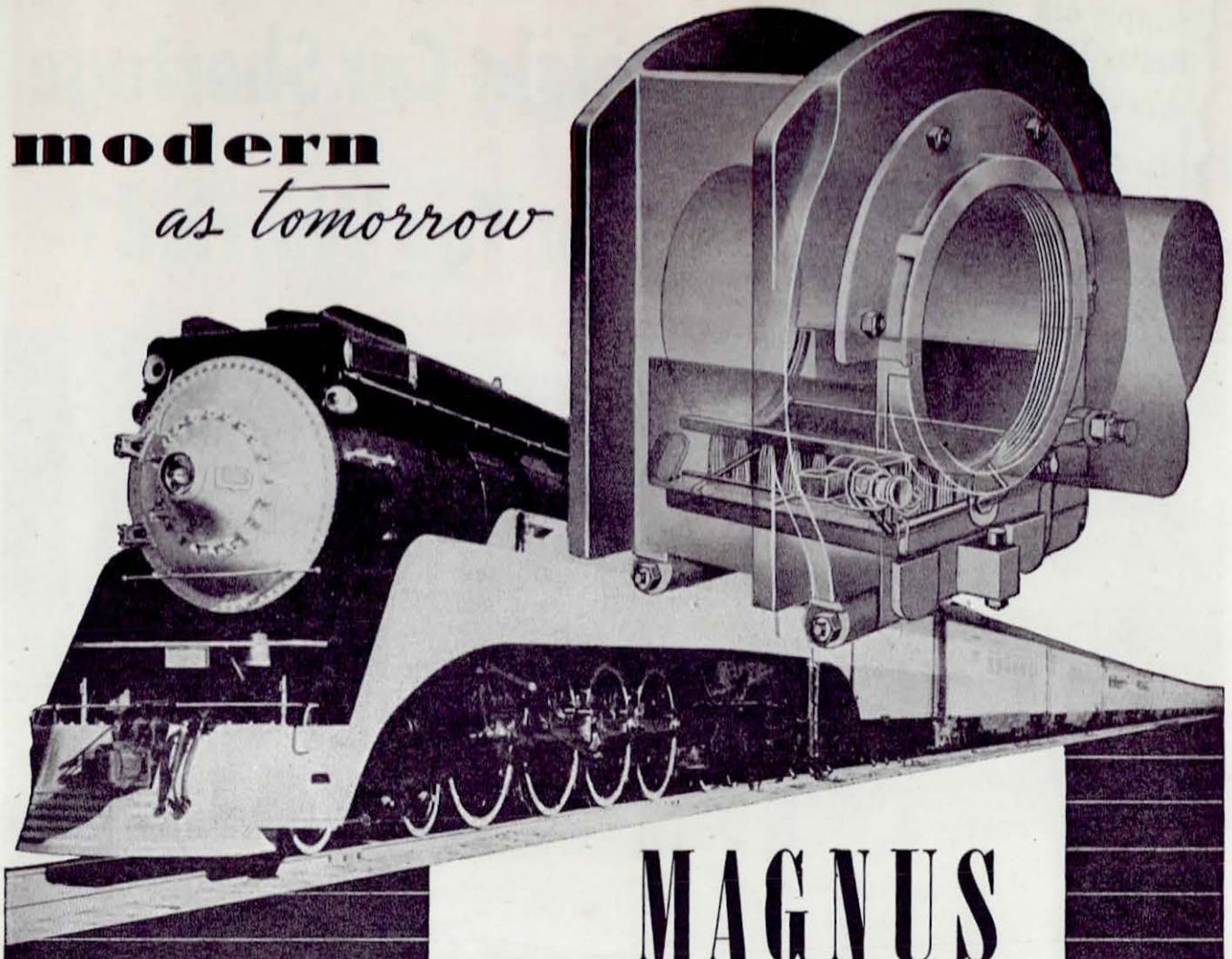
CUTS HANDLING COSTS . . . SAVES TIME . . . SAVES EFFORT . . . PROMOTES SAFETY

YALE



KRON INDUSTRIAL SCALES • HOISTS—HAND AND ELECTRIC • TRUCKS—HAND LIFT AND ELECTRIC

modern
as tomorrow



MAGNUS

Locomotive Journal Oil Lubricator

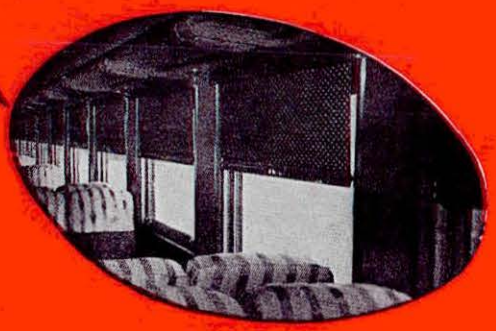
Here is positive lubrication for locomotive bearings. The Magnus Lubricator uses a light-viscosity oil, which increases the life of journal and lateral-face bearings three to five times. Bearings run cooler, road mileage between classified repairs is doubled, and turn-around time is reduced because of quicker servicing.

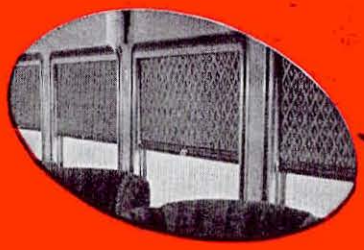
SATCO Bearing Metal

MODERN HEAVY DUTY BEARINGS

MAGNUS METAL CORPORATION
CHICAGO NEW YORK

1900





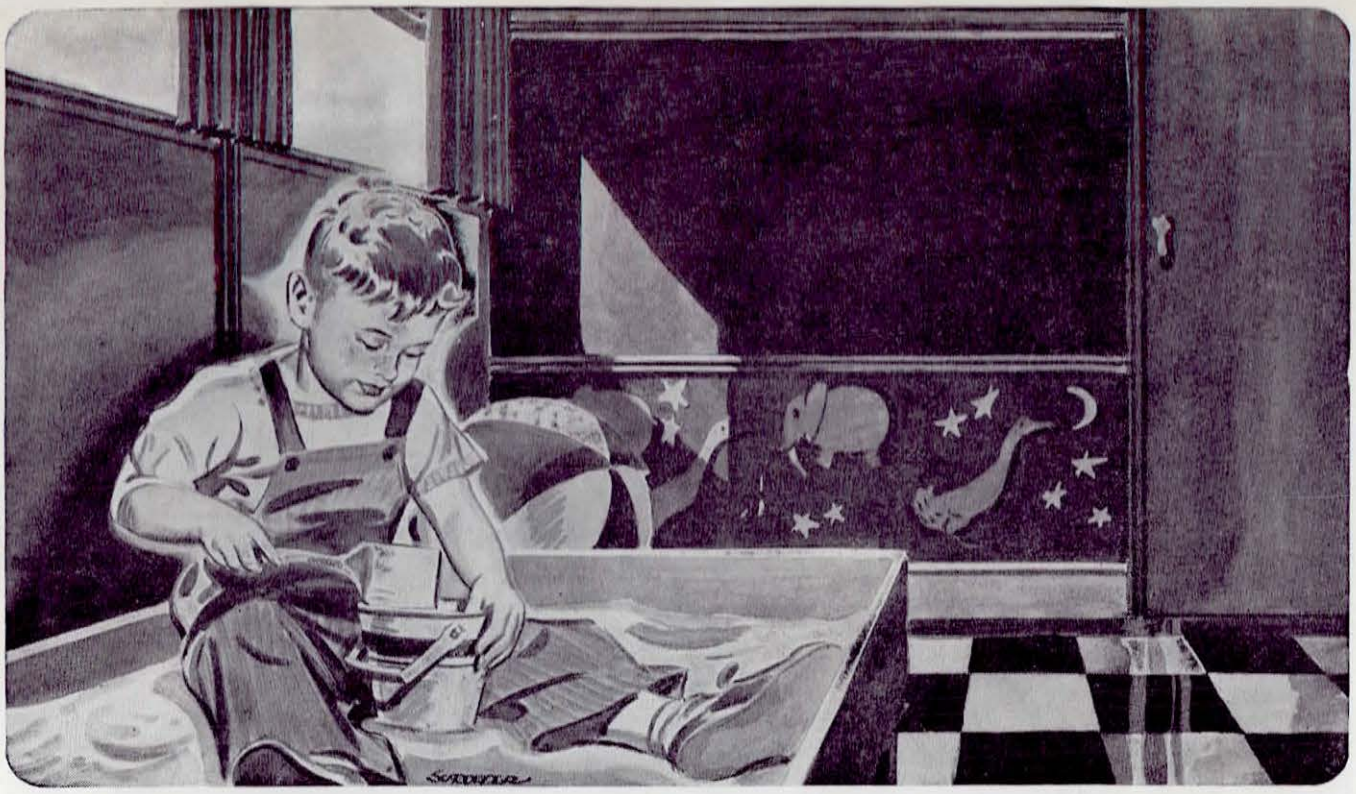
10 to 1 it's PANTASOTE

new . . . pantasote plastic upholstery. You like its durability. Riders like its comfort.

On sleeping car, parlor car, dining car or coach, when a curtain is pulled up or down—10 to 1 it's PANTASOTE!

. . . and you're the reason why! Because for over fifty years, railroad men have specified PANTASOTE Car Curtains—curtains that have lasted twenty-five or even thirty years in actual every-day service. That's even more reason why, to-day, you want to continue to specify PANTASOTE! Three qualities: DeLuxe, Printed, and Double-Face—all excellent!

THE PANTASOTE CORP. OF NEW JERSEY
444 Madison Avenue, New York 22, New York



HIS HAPPINESS AFFECTS EVERY TRAVELER

The New "D-R" V-BELT helps keep him that way!

• This playroom car, plus proper lighting and comfortable air conditioning, provides the necessary elements for making small travelers happy. And that's important.

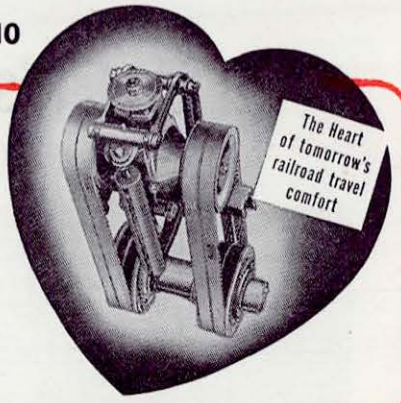
For the supply of adequate, dependable, low-cost power, the new Dayton "D-R" V-Belt, used with the Dayton "D-R" V-Belt Axle Drive, provides an unbeatable combination. The new belt on this drive has been vastly improved. Stronger fabrics, improved compounds and new construction principles combine to make it far better than the "D-R" V-Belt built before the war. It is designed to give well over 150,000 miles of trouble-free service. And it will give this kind of service in spite of rain, snow or ice, dirt or dust, high or low temperatures.

Get the complete story from a Dayton Railway Specialist.

THE DAYTON RUBBER MANUFACTURING CO. • DAYTON 1, OHIO

Advantages of the Dayton "D-R" V-Belt Axle Drive

1. Quiet and smooth performance with high availability—in 15 years a mechanical failure due to V-Belts has never been reported.
2. Provides a flexible, cushioned connection between the car axle and the driven unit that protects generators and other equipment should a mechanical failure occur.
3. It is convenient and economical to install . . . no complicated or expensive truck changes are necessary . . . no special axles are necessary.
4. Duplicate equipment is not necessary to take care of emergencies—when wheel changes must be made, only the axle pulleys need to be removed.
5. It greatly reduces maintenance cost on mechanical equipment as well as on the drives.
6. It imposes a minimum weight on the car axle.
7. Easy and simple to install, dependable in operation, and insures uninterrupted performance.



Railroad V-Belts by **Dayton Rubber**

THE MARK OF TECHNICAL EXCELLENCE IN NATURAL AND SYNTHETIC RUBBER

5,000 Car Sets

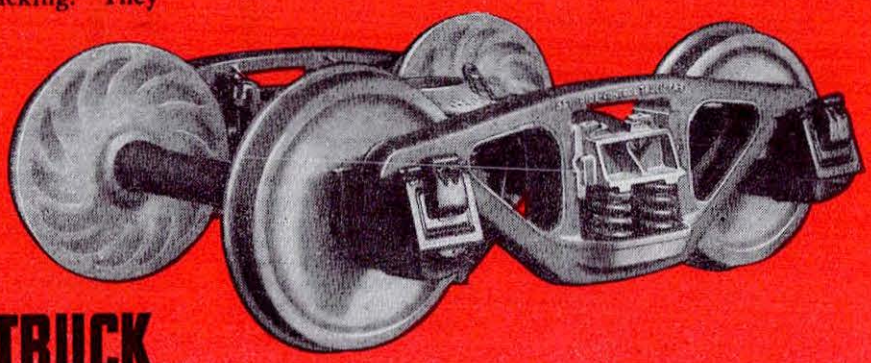
on the First Order!

Ride-Control Trucks Will Be Used Exclusively on P.F.E.'s 40 Miles of New Postwar Refrigerator Cars

● All of the 5000 new 40-ton refrigerator cars now being built for Pacific Fruit Express will roll on Ride-Control Trucks—their *first* Ride-Control order!

Before making this important decision, officials rode similar cars to check Ride-Control performance. They found out for themselves how proper control and long spring travel *absorb* shocks, improve "tracking." They saw how vertical and horizontal bolster motion is cushioned and controlled to give lading an easy ride. They felt the absence of usual jars and jolts, even at *high speeds;* and they specified Ride-Control Trucks because they wanted the best equipment they could get. Fast, dependable, *gentle* transportation of perishables is their business.

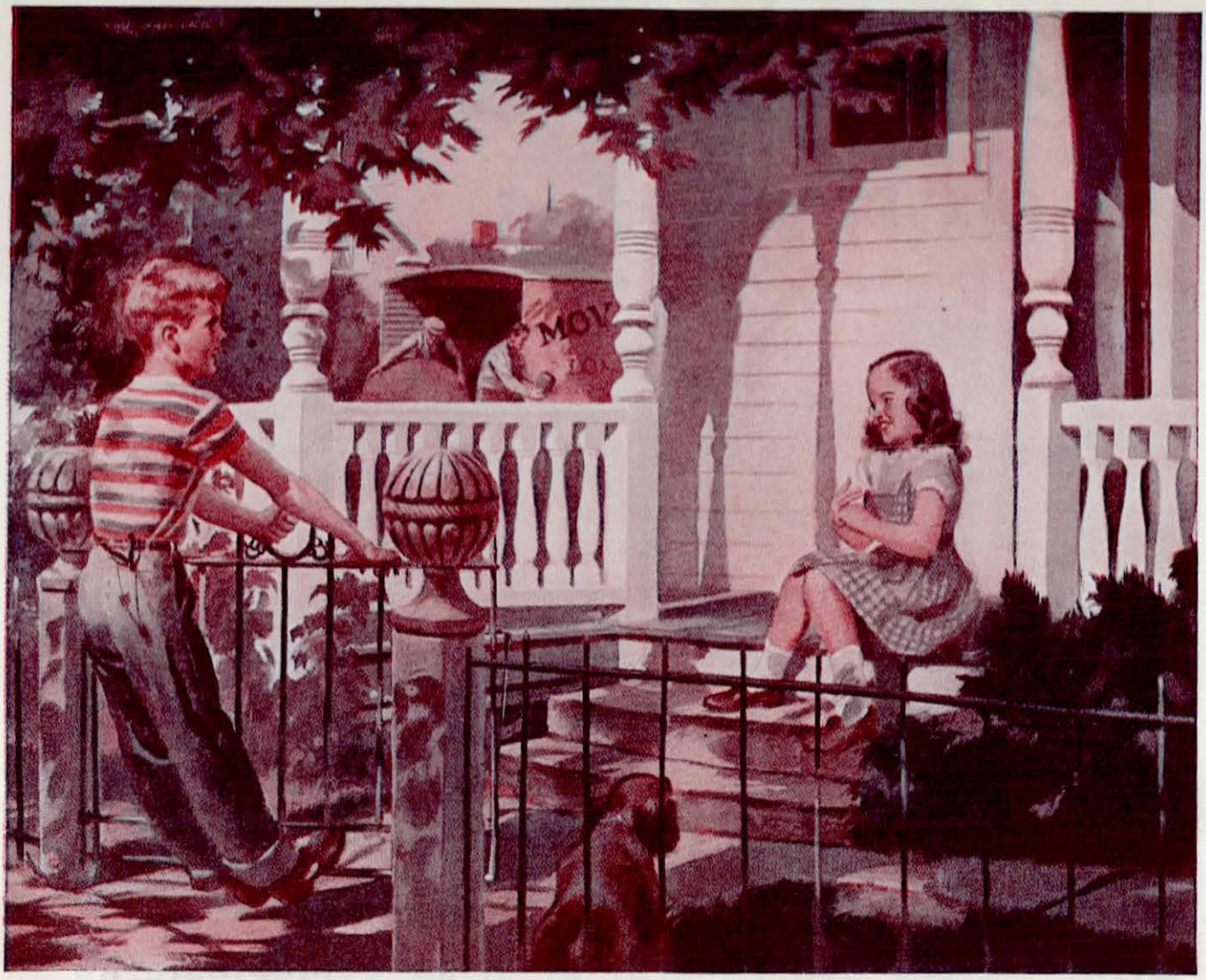
Over and over again, Ride-Control Trucks have proved their ability and versatility on *every* type of freight car from box-express to hoppers. And once you ride these smoother trucks it's easy to understand why over 60 railroads and private car owners already have ordered more than 42,000 car sets. You can't beat *first-hand* facts.



A-S-F *Ride-Control* TRUCK

AMERICAN STEEL FOUNDRIES

MINT-MARK OF ⬡ FINE CAST STEEL



"BUT WHAT'S YOUR LAST NAME?"

Our last name is *Koppers*. Many of you know our "children" by their "first names," but do you know their last name?

That is important to us, and it's important to you, too.

Many of you vouch for the extra service you get from Fast's Self-aligning Couplings or American Hammered Piston Rings, or White Tar insecticides or D-H-S-Bronze . . . and don't know that their last name is Koppers. If you know, you are probably disposed to put more than ordinary trust in other products made by Koppers.

Did you know that you can get a Koppers product for coating metal surfaces to prevent corrosion? A Koppers material that makes roofs last longer? Lumber that defies decay and termites? And many other products made with the same skill and originality and inventiveness as those?

So . . . look for this trade-mark which will soon be found on all Koppers products. Here it is.

K
KOPPERS

It is the mark of an organization which is engaged in many phases of engineering, construction, chemistry and coal carbonization . . . is in the forefront of new synthetic developments . . . is an important supplier to the pharmaceutical industry and to many other industries. For top value, look for this mark. Koppers Company, Inc., Koppers Building, Pittsburgh 19, Pennsylvania.

THE INDUSTRY THAT SERVES ALL INDUSTRY

For example... for the railroad field

Among the principal products Koppers provides for the railroad field are:

Pressure-treated ties, bridge timbers, piles, poles, culverts, car lumber, station platforms, retaining walls, water tanks, etc.

Locomotive Cylinder and Valve Packing.

Automotive Piston Rings.

Piston Rings for diesel engines, and for compressors, pumps, etc.

Coal tar pitch roofing and waterproofing.

Bituminous-base paints.

Plastipitch Protected Metal roofing and siding.

Pitchmastic Flooring Compound.

Coal handling equipment.

Fast's Self-aligning Couplings.

Pipe Dips.

THEY'LL SOON HAVE TRAFFIC

Rolling Again

It's not the kind of picture railroaders like to see. But when one must be coped with, it's a satisfaction to have some "Caterpillar" Diesels that can be pulled off a maintenance operation for the emergency.

With bulldozers at the front and winches at the back, they can tackle a wreck-clearing job from any angle or "key" point. They can push as well as pull. With the winch they have double the pull of the drawbar. They can lick many times their weight in box cars!

Then back to their regular work—where they can keep going 24 hours a day if necessary, bolstering banks with earth and rip-rap, grading sidings, cleaning and deepening ditches, spreading ballast, building culverts . . . solving manpower shortages. What an answer to a superintendent's prayer!

CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

CATERPILLAR
REG. U.S. PAT. OFF.
DIESEL

ENGINES • TRACTORS
MOTOR GRADERS
EARTHMOVING EQUIPMENT

FOR ALL-WEATHER "KICK"...

Philco Equipped

When specifying starting batteries for big diesel locomotives it pays to provide the *extra* margin of ruggedness and efficiency built into a Philco. Philco Railroad Diesel construction gives you such advantages as heavy positive plates with extra power and snap . . . and low resistance copper-core terminals. A Philco delivers the power you need *instantly.* That's why Philco is known in all climates as the battery with the *all-weather "kick".* Specify Philco Diesel Batteries. Write for specification data. PHILCO CORPORATION, Storage Battery Division, Trenton 7, New Jersey.

PHILCO

FOR FIFTY YEARS A LEADER IN
INDUSTRIAL STORAGE BATTERY DEVELOPMENT

Are you permitting him to utilize advances in structural design, improved methods of fabrication and the latest developments in high strength steels?

These are his three most effective means, today, for cutting deadweight, increasing payload, reducing maintenance costs and lengthening life of railroad cars. Through their application, freight and passenger cars can be streamlined and strengthened; corrosion traps, especially in hopper cars, eliminated; and lighter sections employed without any sacrifice of safety or service life.

Recognizing the importance and economy of deadweight reduction, Republic now offers car designers and builders three different high strength steels—Republic ALDECOR, COR-TEN and DOUBLE STRENGTH—in sheets, strip, plates and bars.

From these weight-saving steels may be selected the analysis which will do the best job for your individual needs. And Republic metallurgists always are at your service—to help you replace obsolete, cumbersome equipment with lighter, stronger, longer-lasting cars of all types.

REPUBLIC STEEL CORPORATION

GENERAL OFFICES • CLEVELAND 1, OHIO

Export Department: Chrysler Building, New York 17, New York

Republic

HIGH STRENGTH STEELS

ALDECOR • COR-TEN • DOUBLE STRENGTH

Other Republic Products include Carbon, Alloy and Stainless Steels—Sheets—Plates—Pipe—Bolts, Nuts and Rivets—Boiler Tubes

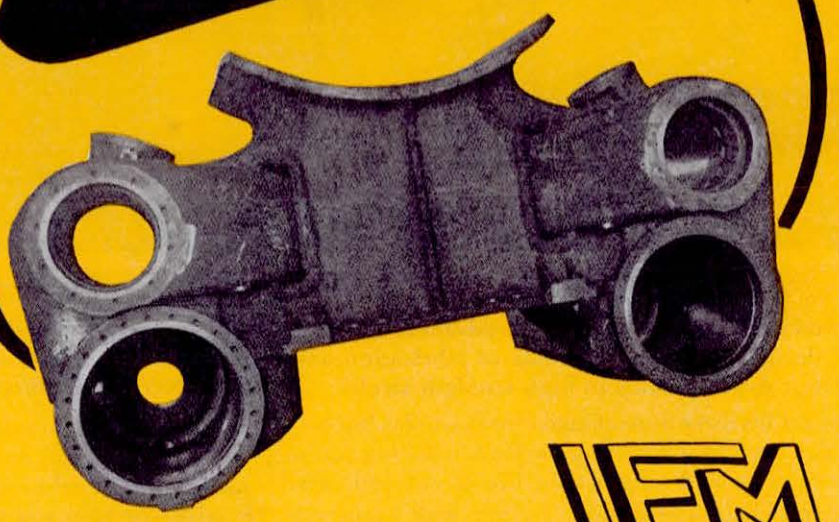
eliminate STRUCTURAL FAILURES

lower MAINTENANCE COSTS

WITH

one-piece

CYLINDER SADDLES



LFM

MODERNIZE YOUR LOCOMOTIVES

WITH THESE PRECISION-MACHINED CASTINGS

They provide measurable benefits in operation . . . substantial front brace effect . . . integral back cylinder heads and independent passages . . . reduction in bolted connections.

LFM CAST STEEL AND GRAY IRON CYLINDER CASTINGS

(either one-piece or two-piece) are products of experienced engineering, high quality workmanship, and metallurgical skill combined to assure reliable performance.

MAKERS OF

LIGHT WEIGHT ALLOY STEEL PISTONS
UNIVERSAL SECTIONAL RINGS
UNIVERSAL WHEEL CENTERS

ESTABLISHED 1872

PIONEERS IN THE DEVELOPMENT OF THE LIGHT WEIGHT PISTON AND COMBINATION SECTIONAL PACKING

CONSULT OUR ENGINEERS. THEIR EXPERIENCE AND OUR MODERN SHOP FACILITIES ARE ALWAYS AT YOUR SERVICE

THE LOCOMOTIVE FINISHED MATERIAL CO.

ATCHISON, KANSAS ★ NEW YORK CITY ★ CHICAGO, ILL.

Casting Work and Machining Work... *Both the Finest*

That machining job on a locomotive driving wheel center, illustrated above, only gives you a single-unit glimpse of PSF's highly complete and modern finishing facilities—but depend upon it, they're unexcelled for any and all steel casting work from a few pounds to a hundred tons. We're equipped to handle any jobs within that range, in carbon or alloy steel, and in practically any shape or degree of intricacy. • Let us work with *you*.

Complete Facilities for CONTRACT MANUFACTURING to Your "Specs"

We'll make the castings and build your machine, too—sub-assemblies or complete units, to your exact requirements. Call PSF in on your production program.

WAD 979

PITTSBURGH STEEL FOUNDRY CORP.
Glassport, Pa.

Plants:
Glassport, Pa. and McKeesport, Pa.

Sales Offices:
New York Chicago
Philadelphia Washington

48 YEARS OF STEEL CASTING KNOWLEDGE

The Annual Statistical and Outlook Number of *Railway Age* has been a landmark on the railway scene for almost half a century. Not only will the news value of this outstanding issue—to be published January 4, 1947—be of immediate interest throughout railway circles but its invaluable reference data on 1946 railway operations will stretch its active life over many months. In addition, the Outlook Section will chart 1947 trends and the course of railway events to come.

To Manufacturers:

There's no better place to tell your product story than the January 4 *Railway Age*, the *Annual Statistical and Outlook Number.* That's an issue railway men will study and refer to repeatedly.

On December 16 the Annual Number closes its advertising forms. Time is limited. Don't "miss the train"! Reserve space now and let copy follow promptly.

ANNUAL STATISTICAL AND OUTLOOK NUMBER

Railway Age

JANUARY 4, 1947 ISSUE

ORTON-DREADNOUGHT
DIESEL WRECKER
Saves Time!

Keyed to the Age of Streamlined Trains

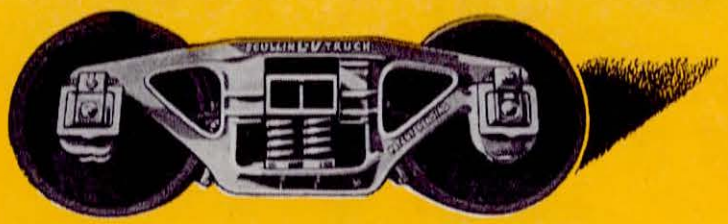
- No need for outriggers when rerailing light loads. The Orton Diesel Dreadnought is balanced so that high-boom can safely be swung without outriggers. Saves hours of time on 90% of wrecking jobs.
- No signalman necessary. Operator has complete view of load at all times. Unobstructed view from cab gives operator confidence in safe handling under all conditions.
- No boiler fire to maintain between emergencies.
- No boiler to clean, no tubes to repair with risk of lay-up when wreck call comes in.
- Alloy steels, welded construction, anti-friction bearings, sensitive air-controls make this modern Dreadnought a compact, streamlined machine far removed from the awkward, inaccessible designs now relics of the days of low-strength materials.

Send for detailed specifications

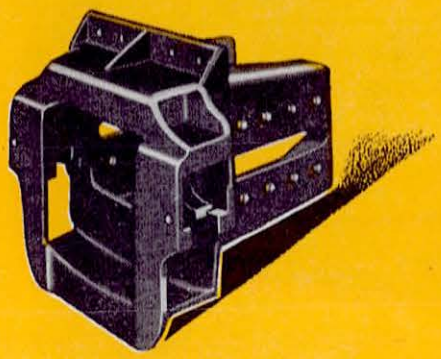
ORTON

CRANE & SHOVEL CO. • 608 S. Dearborn St., Chicago 5

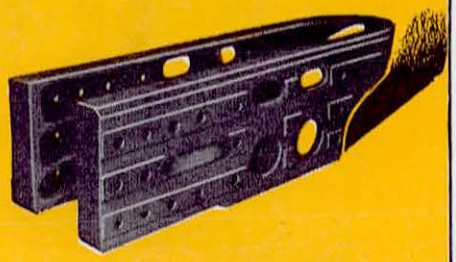
SCULLIN STEEL CASTINGS FOR "ON TIME" PERFORMANCE



Scullin Cushioned LATERAL-VERTICAL Motion Truck

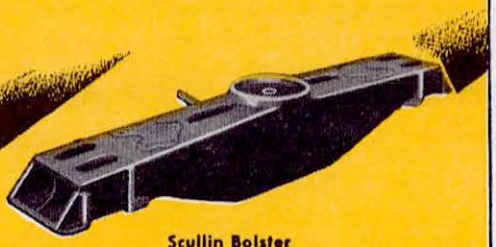


Scullin A. A. R. Striker with integral front draft lugs

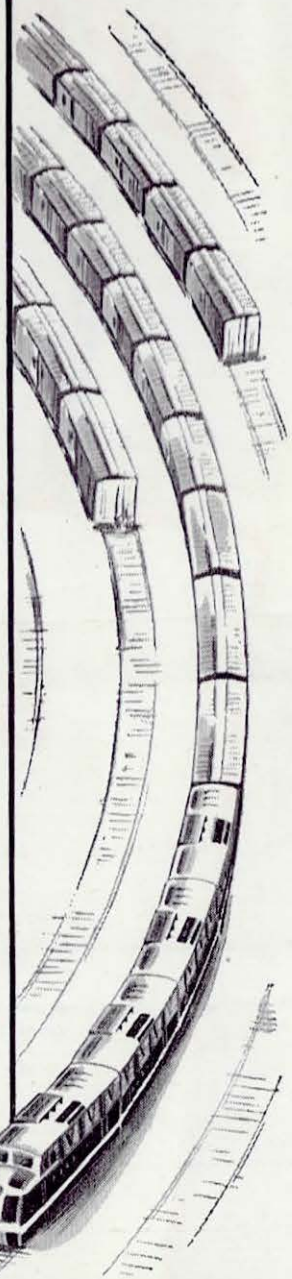


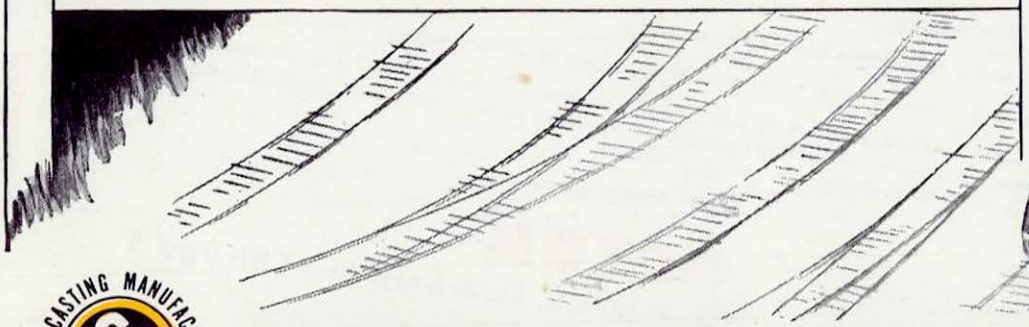
Scullin A. A. R. Bolster Center Filler with integral rear draft lugs

Scullin Side Frame



Scullin Bolster





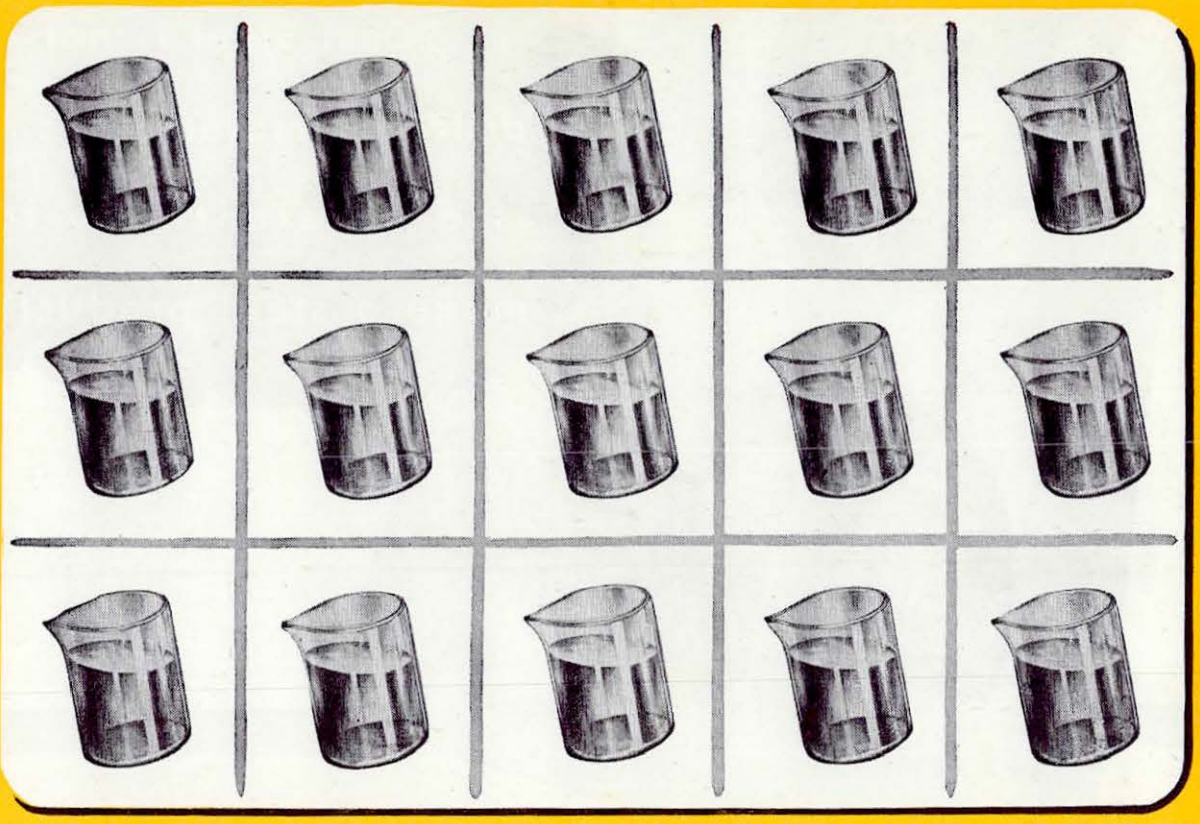
STEEL CASTING MANUFACTURERS · SINCE 1899 ·

SCULLIN STEEL CO

SAINT LOUIS 10, MISSOURI

NEW YORK • CHICAGO • PHILADELPHIA • CLEVELAND • ST. PAUL • BALTIMORE • RICHMOND, VA. • MEXICO CITY, D. F.

UNIFORMITY...



...you can count on it in SHELL "DIESELINE"

Laboratory analyses of Shell "DIESELINE*" reveal its month-after-month, year-after-year uniformity. That is why it enables Diesel operators to tune an engine's fuel injection system to that fine point which brings maximum economy . . . and hold it there!

Unvarying quality in engine-testing fuels is of utmost importance to Diesel manufacturers . . . and it is significant that many prominent builders have standardized on Shell "DIESELINE"—not just for the past year or two, but for ten, and in the case of one of the leading engine makers, for *twelve consecutive years!*

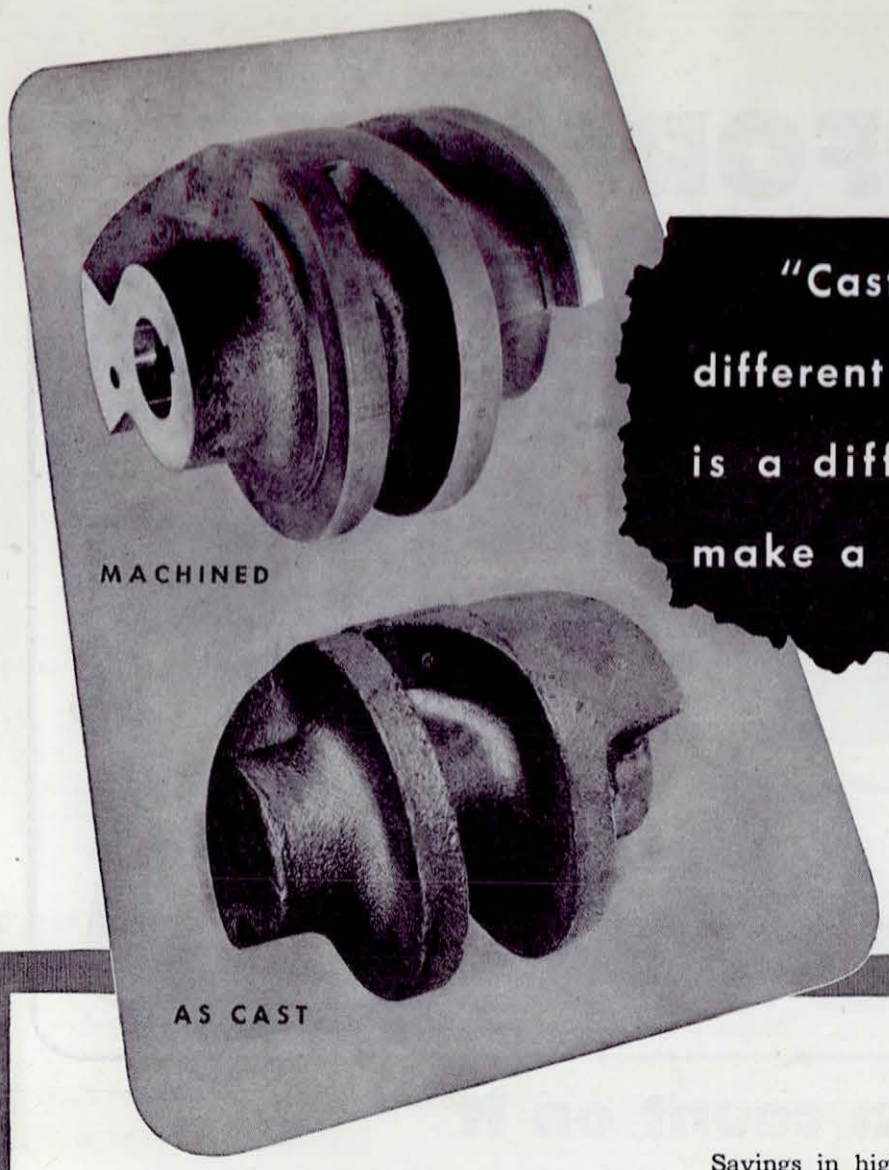
Try this modern quality fuel in your engines for a month or two. Keep records and compare with the results you've been getting. You will be impressed by the top-notch, *consistent* performance you get from Shell "DIESELINE."

For more information about Shell "DIESELINE," write to Shell Oil Company, Incorporated, 50 West 50th St., New York 20, N. Y.; or 100 Bush St., San Francisco 6, Calif.

*Trade Mark Reg. U. S. Patent Off.

SHELL

SHELL "DIESELINE"



"Cast Steel is not a different material . . . it is a different way to make a steel product"

That is the statement of one of America's leading Research Metallurgists.

Take for example these 20-pound cams for an automatic machine.

Rough cast close to final shape and dimensions, they cost a great deal less to finish than if produced by other methods. And castings are free from directional properties!

Savings in high-cost machine finishing are of real importance to you. They help you meet competition with products you can afford to sell for lower prices, without sacrifice of quality, performance or long life.

The first step in building an improved product, or in cutting costs, is to plan it that way—a steel castings engineer can help you. Steel Founders' Society, 920 Midland Bldg., Cleveland 15, Ohio.

MODERNIZE AND IMPROVE YOUR PRODUCT WITH

STEEL CASTINGS

TO TAME THE ROUGHEST RIDING CAR ON THE RAILROAD, FOLLOW THE EXAMPLE OF THESE

Progressive Railroads

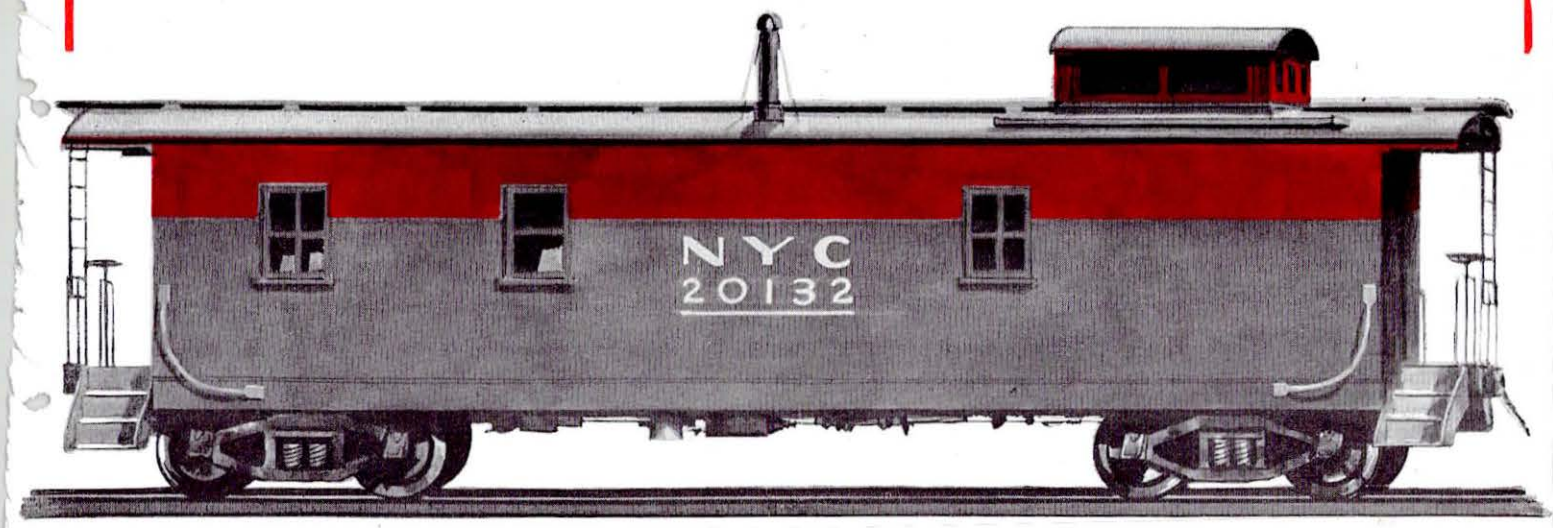
NEW HAVEN

THE NEW HAVEN RAILROAD HAS 83 CABOOSES TWIN-CUSHION EQUIPPED

Equip cabooses with the draft gear that takes all of the bite out of cumulative car-to-car impacts

Road tests of Twin Cushion equipped cabooses show that Waughmat Twin Cushions are an invaluable aid in improving caboose riding characteristics. These tests were made under actual operating conditions with and without pusher engine. The favorable results have been further substantiated by many millions of miles of caboose service.

NEW YORK CENTRAL



CABOOSE OF NEW *Pacemaker* HIGH SPEED FREIGHT SERVICE OF THE NEW YORK CENTRAL

To cushion jerks, jolts, and jars, to safeguard equipment and protect personnel, specify Waughmat Twin Cushions for all cabooses.

Assure smooth riding with

WAUGHMAT *Twin Cushions*

UNION PACIFIC

MORE THAN 200 UNION PACIFIC CABOOSES ARE EQUIPPED WITH WAUGHMAT TWIN-CUSHIONS

TWIN CUSHIONS have no solid point. A.A.R. Laboratory drop-hammer and impact tests and years of service under all conditions show that there is no normal service impact sufficient to make Twin Cushions go solid.

Operating in pull or in buff. Twin Cushions allow practically no free slack. They provide two-way protection against the heavier jolts of both starting and stopping.

Eliminating most of the shocks, surging and pulsating vibrations transmitted from car to car back to the caboose, they minimize the tendency of the caboose to rock and jump at high speeds. Twin Cushions are the *modern* draft gear. Specify Twin Cushions on all cabooses.

CAN BE APPLIED TO OLD OR NEW CARS

WAUGH EQUIPMENT COMPANY, New York · Chicago · St. Louis · Canadian Waugh Equipment Company: Montreal

OH-H-H IT'S Firestone *Velon**

***Velon* makes lighter, brighter colors practical** because it's soil-proof, practically wear-proof, cannot fade or change color.

***Velon* is easy to clean.** Dirt, grease, grime can't cling to its non-porous threads. *Velon* is restored to original beauty with a quick wipe of a damp cloth.

***Velon* defies wear** because each thread is a single fibre of giant strength. It won't scuff or snag, bag or "grow" out of shape.

***Velon* cuts maintenance cost,** banishes replacements. Its luxurious beauty attracts passengers. Specify *Velon* for seating, wall-trim, shades, from your regular fabric sources.

AH-H-H IT'S Firestone FOAMEX*

***Foamex* floats folks in blissful relaxation** on millions of tiny, buoyant air-and-latex cells.

***Foamex* is air-cooled, air-cleaned,** because its countless little cushioning cells "breathe" constantly.

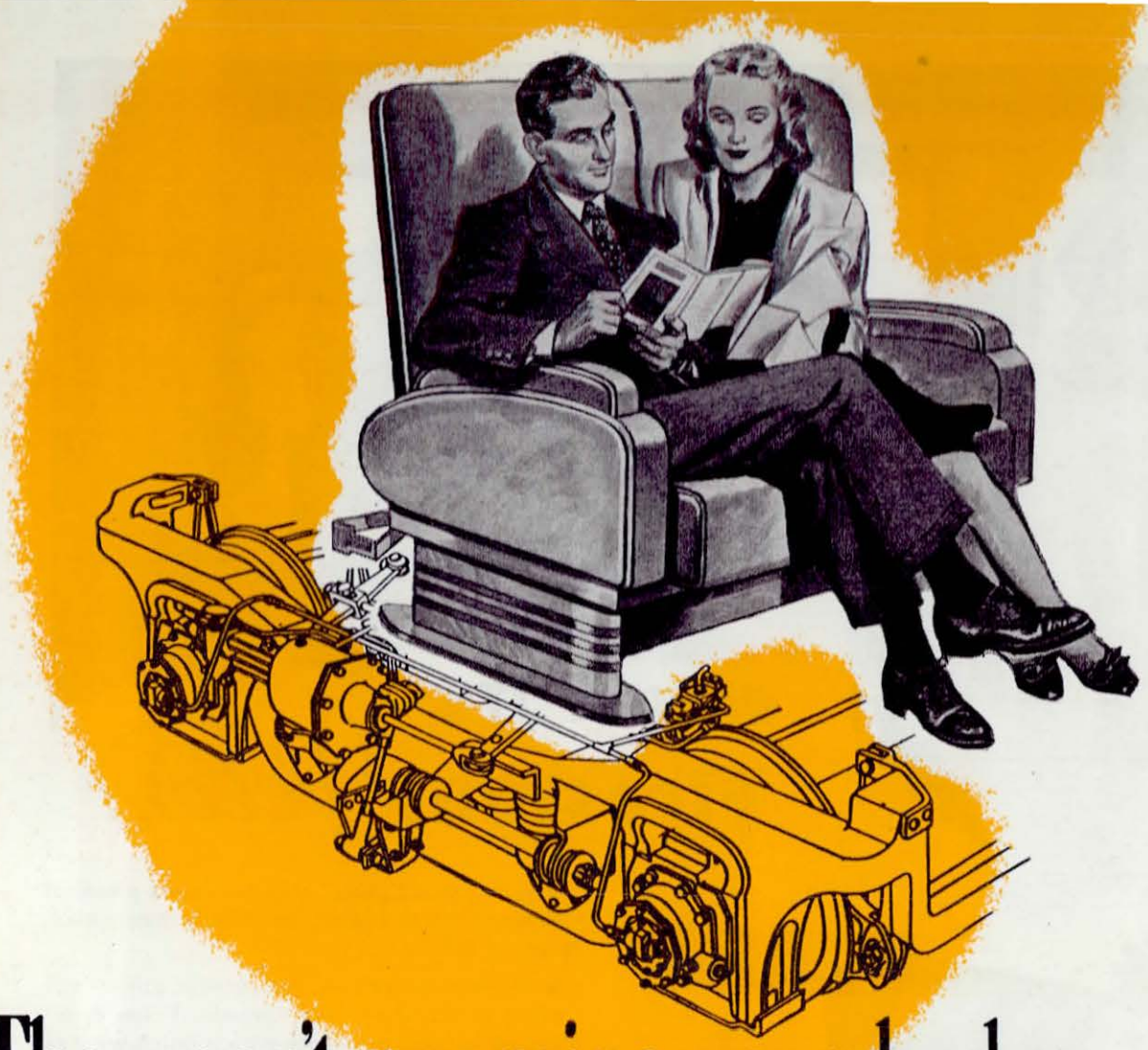
***Foamex* is lump-proof, sag-proof,** practically wear-proof because it is electronically processed. Replaces old-style upholstery "innards" with a one-piece material.

FREE—Write, Firestone, Akron, for your copies of full-color *Velon* and *Foamex* booklets.

BEST TODAY··· STILL BETTER TOMORROW

*TRADE MARK

LISTEN TO THE VOICE OF FIRESTONE MONDAY EVENINGS OVER NBC



They won't examine your brakes

But they'll sure scan your Schedule

Your average passenger never realizes that modern brakes make possible your fast schedules which attracted him. Nor does he reason that all the comforts you provide would be of little value without smooth brake action. Yes, he thrills to your streamlined equipment, but chills if you don't get him there on time!

"HSC" Electro-Pneumatic Brakes will help you meet schedule promises and passenger expectations. They are especially designed to meet present day needs. They stop trains smoothly and permit faster resumption of speed after slow-downs. They augment the comfort of modern rolling equipment.

Safeguard your investment in competitive advantage with "HSC" Electro-Pneumatic Brakes. They will contribute greatly to "on-time" performance. With their two companion devices, Speed Governor Control and "AP" Decelostat, you will have an unbeatable combination:

"HSC" Electro-Pneumatic Brakes . . . for brake flexibility to match modern train speeds, and unequalled smooth action.

Speed Governor Control . . . for regulating braking forces to wheel speeds.

"AP" Mechanical Decelostat . . . for wheel slip detection to keep the wheels rolling.

Westinghouse Air Brake Co.

WILMERDING, PA.

Railway Age

With which are incorporated the Railway Review, the Railway Gazette, and the Railway Age-Gazette. Name registered in U. S. Patent Office.

Vol. 121 December 7, 1946 No. 23

PUBLISHED EACH SATURDAY BY THE SIMMONS-BOARDMAN PUBLISHING CORPORATION, 1309 NOBLE STREET, PHILADELPHIA 23, PA., WITH EDITORIAL AND EXECUTIVE OFFICES AT 30 CHURCH STREET, NEW YORK 7, N. Y., AND 105 W. ADAMS STREET, CHICAGO 3, ILL.

WASHINGTON 4, D. C.: 1081 NATIONAL PRESS BUILDING—CLEVELAND 13: TERMINAL TOWER—SEATTLE 1: 1033 HENRY BUILDING—SAN FRANCISCO 4: 800 MONTGOMERY STREET, ROOMS 805-806—LOS ANGELES 14: 530 WEST 6th STREET—DALLAS 4: 2909 MAPLE AVENUE.

SAMUEL O. DUNN, CHAIRMAN. JAMES G. LYNE, VICE-PRESIDENT—ASSISTANT TO CHAIRMAN. HENRY LEE, PRESIDENT. ROY V. WRIGHT, VICE-PRESIDENT AND SECRETARY. C. MILES BURPEE, F. H. THOMPSON, F. C. KOCH, R. E. THAYER, H. E. McCANDLESS, S. WAYNE HICKEY, VICE-PRESIDENTS. J. T. DeMOTT, TREASURER. RALPH E. WESTERMAN, ARTHUR J. McGINNIS, ASSISTANT TREASURERS.

SAMUEL O. DUNN, EDITOR. JAMES G. LYNE, ASS'T TO EDITOR. ROY V. WRIGHT, MANAGING EDITOR. NEAL D. HOWARD, WESTERN EDITOR. C. B. PECK, ALFRED G. OEHLER, E. L. WOODWARD, J. H. DUNN, H. C. WILCOX, CHARLES LAYNG, GEORGE E. BOYD, WALTER J. TAFT, M. H. DICK, W. H. SCHMIDT, Jr., C. L. COMBES, C. B. TAVENNER, CHARLES ROBINSON, MAURICE PEACOCK, FRED W. SMITH, SHERMAN DAVIS, FRED C. MILES, WALTER L. TURNER, Jr., G. J. WEIHOFEN, GEORGE JOHNSON. LIBRARIAN: EDITH C. STONE. EDITORIAL ASSISTANT: ELAINE C. FARRAR.

SUBSCRIPTIONS, INCLUDING 52 REGULAR WEEKLY ISSUES, AND SPECIAL DAILY EDITIONS PUBLISHED FROM TIME TO TIME IN NEW YORK OR IN PLACES OTHER THAN NEW YORK, PAYABLE IN ADVANCE AND POSTAGE FREE. UNITED STATES, U. S. POSSESSIONS AND CANADA: 1 YEAR, $6.00; 2 YEARS, $10.00; OTHER COUNTRIES NOT INCLUDING DAILY EDITIONS: IN WESTERN HEMISPHERE 1 YEAR $10.00; 2 YEARS $16.00; OTHER COUNTRIES 1 YEAR $15.00; 2 YEARS $25.00. SINGLE COPIES, 50 CENTS EACH. H. E. McCANDLESS, CIRCULATION MANAGER, 30 CHURCH STREET, NEW YORK 7.

In This Issue

Page

What About Our Railroad Stations? **952**

Architect J. C. Sherrick raises this question in an address on modern architecture before railway building officers, as he points out features of good design.

Prescribes for Successful Bargaining **955**

The New York Central's vice-president, personnel, insists unionists cannot thrive if investors are starved out. He asks for negotiators who have the power to bargain.

Future Passenger-Car Weight Reductions **961**

A statement of the present status, of basic conditions underlying weight reductions, and suggested further procedures for car builders and specialty manufacturers by Paul W. Kiefer.

EDITORIALS

Popular Understanding of Economic Principles 949
Nationalization Nearer in Great Britain 950
Repair Tracks Can Increase Car Availability 951
C.T.C. Rather Than Automatic Block Signals 951

GENERAL ARTICLES

What About Our Railroad Stations?, by J. C. Sherrick 952
Prescribes for Successful Bargaining 955
L. & N. Installs C.T.C. on 107 Miles 958
Future Passenger-Car Weight Reductions, by Paul W. Kiefer .. 961
Edward G. Budd Dies at 75 963
Beven Succeeds Bond on E. J. & E. 964

NEW DEVICES **965**

GENERAL NEWS **966**

WITH THE GOVERNMENT AGENCIES **971**

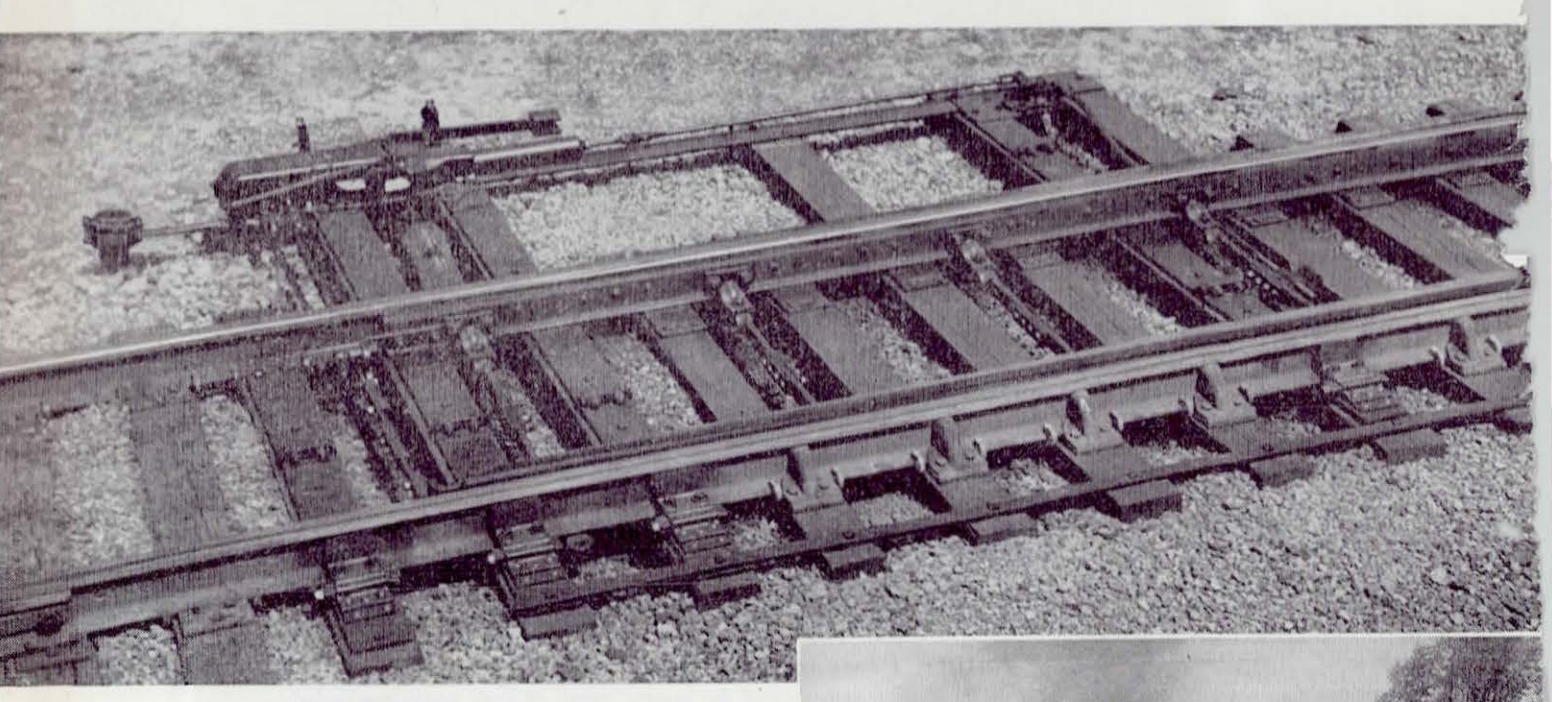
FREIGHT OPERATING STATISTICS **985**

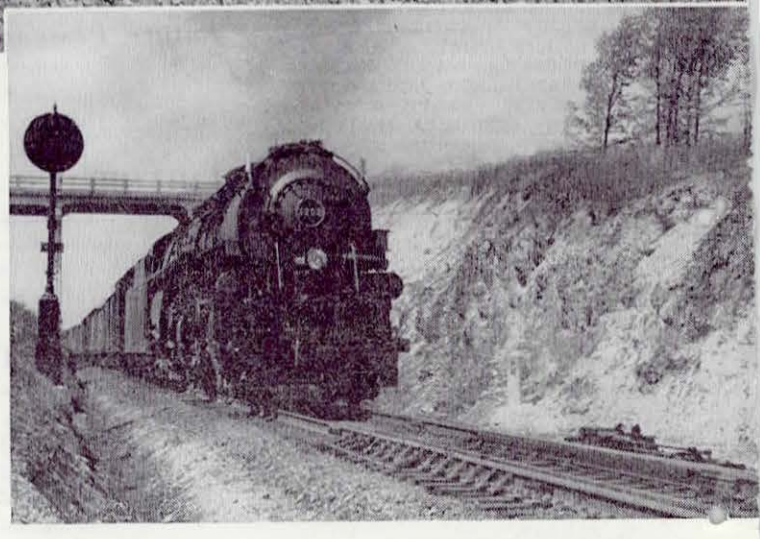
Railway Age is a member of Associated Business Papers (A. B. P.) and Audit Bureau of Circulation (A. B. C.), and is indexed by the Industrial Arts Index and by the Engineering Index Service.

PRINTED IN U. S. A.

FACING POINT MOVES

at normal speeds





Over spring switches equipped with "UNION" S-20 and S-21 mechanical facing point locks

Spring Switches are valuable time savers for trailing moves—and "Union" Mechanical Facing Point Locks make it possible to save that time without reduction in speed or decrease in safety for facing-point main line moves. Slow orders are not necessary, because spring switches equipped with these locks provide a degree of safety comparable to that at interlocked switches.

For facing-point moves, the "Union" Mechanical Facing Point Lock prevents opening of the points in case of a broken spring in a spring head rod, or failure of the operating rod; and guards against shifting of the points under trains.

Because of these safeguards "Union" S-20 and S-21 Mechanical Facing Point Locks have been installed in over 900 locations since 1939, resulting in almost incalculable saving of time. On one railroad alone, 42 of these switches saved 74,277 train stops in one year. Elimination of those stops, plus the removal of special speed restrictions saved the equivalent of 25,970 car days per year.

Our nearest district office will be glad to furnish full information.

UNION SWITCH & SIGNAL COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

The Week at a Glance

FALSE FRIENDS: It is one thing to shout hosannas when free enterprise is preached, but something else again to apply its principles personally when the process is painful. In this week's leading editorial the performance of certain elements of the transportation industry is examined in the light of this tenet. Subsidies are the temptation dangled before many participants in this category of enterprise, and it is no secret that there are instances not only of yielding passively to this temptation but of making very active efforts to get within reach of it. Morally and logically, the exponent of free enterprise whose purse is fattened by subsidies is in the same bed as the most rampant socialist or the most arrogant union dictator, and for all his fine words for free enterprise his actions contribute as much as theirs to the insidious entrenchment of totalitarian dogma calculated to destroy it.

●

C. T. C. HELPS L. & N.: An important east-west line linking the two main through routes of the Louisville & Nashville in Kentucky has been equipped with a modern centralized traffic control installation, described in the illustrated article on page 958. While traffic normally is only moderately heavy on this 107-mile single-track segment, the decision was made to employ C. T. C. rather than straight automatic block signaling, not only because train operation could be speeded but also because fewer intermediate signals would be required and several existing sidings could be removed.

●

SLOW ORDER: This issue's news pages include a summary of late orders from Washington imposing an embargo on railroad freight and express shipments, with certain exceptions, and further reducing the operation of passenger trains with coal-burning locomotives. A similar embargo on freight was ordered at the time of the strike of the trainmen's and enginemen's unions, earlier this year, but with the exception of that unhappy but brief experience the railroads have not been compelled to curtail their service to their customers so drastically for a good many years. With a few days of this sort of thing, the number of railroad employees not drawing down any pay is likely to get in the class of interesting and active statistics.

●

CAR CONSIDERATIONS: Opportunities still exist to develop practical ways further to reduce the weight of passenger cars, but it is essential, in exploring them, to hold on to the primary consideration in the design of such equipment—that is, the development not merely of a lighter car, not simply of a lighter and better car, but of a car that is lighter, and better, and cheaper, all things considered. So says Paul W. Kiefer of the New York Central in an evocative discussion of future prospects in this field, the gist of which forms the article on page 961. And in this connection he has a good word or two for the much-maligned "conventional" or pre-streamliner car. It is possible to go so far in lightening construction that a car will spend a burdensome part of its life in the shop, and it is also possible to take so much weight out of a car that it will ride badly, he points out in suggesting that the optimum car of the future must be the result of consideration not only of mechanical properties, but of maintenance characteristics and net revenue-producing power, too.

●

STATIONS THAT SATISFY: The chances are that not many people who want to go somewhere will decide to take the train, rather than a competing form of transportation, just because the train stops at a new-looking, clean, comfortable, convenient, cheerful station. But some of them may decide *not* to take the train if the station's arrangement causes them discomfort and inconvenience, if it is down-at-the-heel, dingy, doleful and disheveled. Some ways in which railroads can make their stations appealing are suggested in an illustrated article herein.

●

ALL-OVER REPAIRS: One way to keep more freight cars in service is pointed out in an editorial this week. It calls for the emphatic support of department heads and their superiors; it calls for modern facilities and tools; but above all it calls for a commodity never rationed and fairly plentiful around a railroad, though not always sought out and utilized—gumption. When cars are received on repair tracks, there are two ways to dispose of them. One is to fix what brought them there and get rid of them before something else goes wrong. The other is to make whatever other ordinary repairs or adjustments experience suggests so that more troubles may be forestalled and another visit to the repair man may be put off for a long while.

●

THE HOUR IS LATE: Over in England government ownership of railways isn't just an intriguing subject for academic debate, it is a legislative proposal regularly introduced in Parliament with the deliberate support of the majority party, scheduled to go into full effect January 1, 1948. Through state control of railroads, canals, and long-haul trucks, competition in supplying that country's domestic freight transportation virtually will be wiped out, if the proposal goes through. What they do in Great Britain may not be our business, but an editorial suggests that that is no reason for ignoring the probability that advocates here of every brand of "improvement" over old-fashioned individual liberty and private enterprise will point to this British program as the cure for all the ills that have beset the railroads, and other types of transportation, on this side of the Atlantic. And it isn't too soon for those who don't accept such doctrine to busy themselves squelching it while it's in its renascent state.

●

NEWS IN BRIEF: Brake shoe production is cut critically by lack of scrap. . . . The Maritime Commission can't see its way clear to getting out of the steamship business. . . . The Railway Labor Executives' Association says Mr. Truman is getting "arbitrary" about Mr. Lewis' strike.

TWO TO MAKE A BARGAIN: Collective bargaining on the railroads, to be successful, requires that the negotiators representing each side have the power to come to an agreement fair to the employees, to the company, and to the public (a party whose interest sometimes is sadly neglected). It also requires an appreciation on the part of the men on both sides of the table of the fact that the enterprise came into existence, and continues to exist, through contributions from each party, and that its survival is threatened whenever one contributor for any considerable time is inequitably compensated as compared to the other. By exercising their present political and economic power, the unions are now able to obtain substantial gains for railroad employees at the expense of the owners, and indirectly of the public, but such exploitation of capital by labor cannot continue long—the owners will seek other investments for their capital. This is one of the significant points made by L. W. Horning of the New York Central in an earnest and thought-provoking analysis of the techniques of labor-management negotiation presented by him at a recent Lackawanna "Y" forum, and abstracted in this issue.

●

NET STILL DOWN: The railroads' ten months' net was about $155 million, or around a third of last year's same period, but to make it the bookkeepers had to figure in an $85 million tax "carry back." With freight and passenger operations drastically curtailed and much of the country's industry fast coming to a halt for lack of coal, it stands to reason that results for the year won't make good reading either—except for those who hope to see corporate ownership of railroads brought to an end.

●

UNUSUAL BELT LINE: The feature article reporting the election of Thomas D. Beven to the presidency of the Elgin, Joliet & Eastern (page 964) directs attention incidentally to some of this railroad's out-of-the-ordinary characteristics. It is a belt line, but most of its revenues are derived from divisions rather than switching charges. It originates nearly half its traffic, but it performs extensive intra-plant switching services. Its road freight operations require about 80 engine assignments daily, but the biggest demand on its locomotive roster is for switching.

●

YOUNG VS. YOUNG: The Pennsylvania's Charles D. Young doesn't see eye to eye with the Chesapeake & Ohio's Robert R. Young on the net economy of ordering sleeping cars in large lots, and he had something to say also, at the Interstate Commerce Commission examiners' hearing on the railroads' proposal to take over the Pullman Company, about how many new cars the railroads have ordered recently—and how fast the railroads and the people who pay the fares can afford to replace old cars. Incidentally, the parties calling the railroads slow about ordering cars are the ones seeking delay in this proceeding. Details appear in the news columns.

HIGH SCORING "ELEVEN"

stars in tough plays

The eleven 4-unit General Motors Diesel freight locomotives in service on the Northern Pacific Railway have about as versatile and tough a hauling job as can be found.

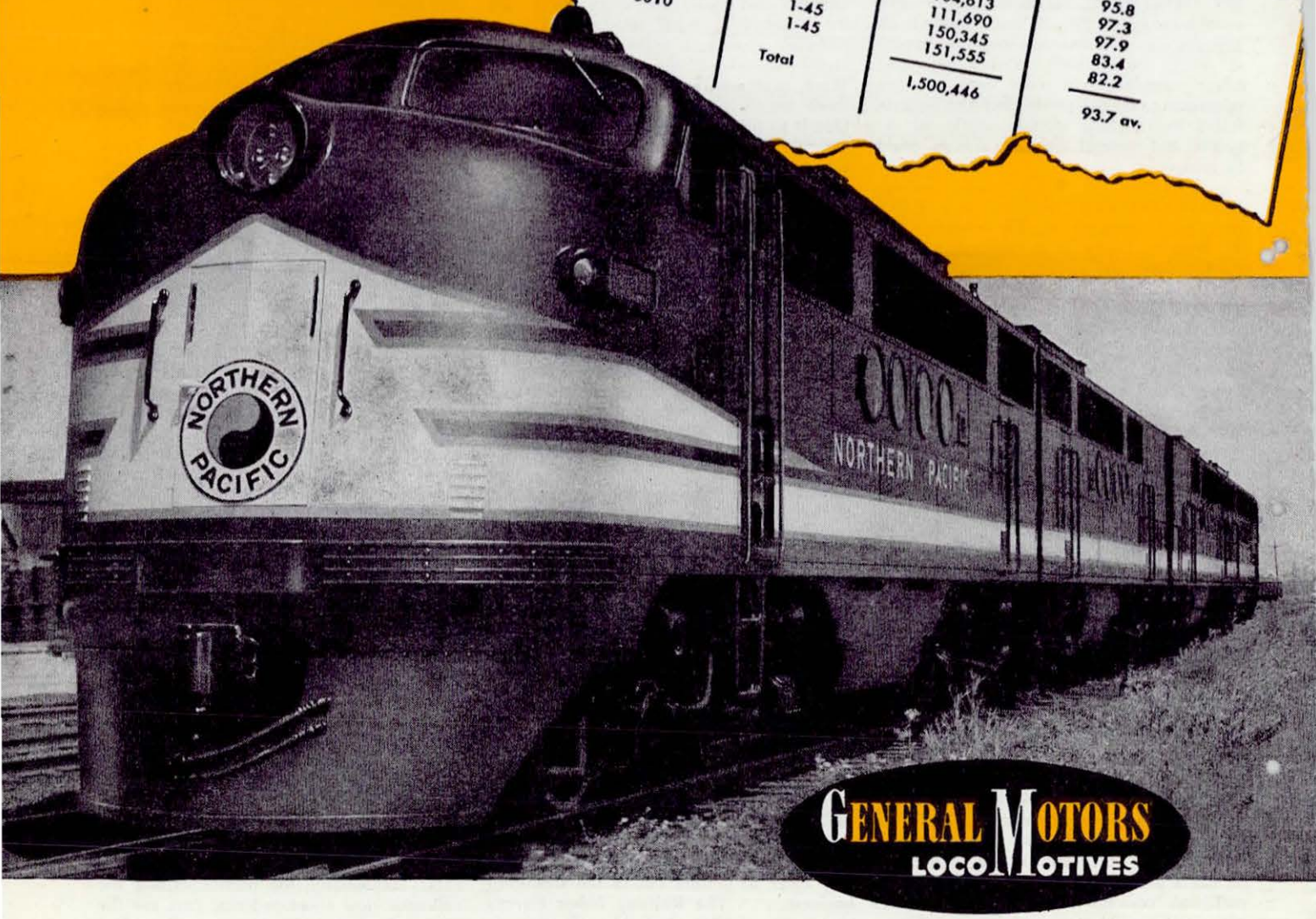
They speed long freight loads from the Midwest to the Northwest, hauling products that range from dead freight, to high class, to perishables.

As shown by the performance table herewith, these General Motors Diesels take it all in stride. Together the eleven Diesels average a total of 63,481 miles a month. This figures to 5,771 miles per month per locomotive. The combined total mileage of these Diesels, since the first one entered service in February 1944, is 1,500,446 miles.

Average availability of 93.7% attests to the sound engineering, and material workmanship put into General Motors Diesels. It also indicates that it pays railroads when the locomotive builder concentrates solely on Diesels as at Electro-Motive.

The record tells the story

Locomotive Number	Month Delivered	Miles Operated	Per Cent Availability
6000	2-44	165,410	93.9
6001	3-44	144,988	92.9
6002	5-44	148,848	95.9
6003	7-44	129,435	95.2
6004	7-44	140,432	95.4
6005	8-44	132,316	97.5
6006	10-44	120,814	95.8
6007	12-44	104,613	97.3
6008	12-44	111,690	97.9
6009	1-45	150,345	83.4
6010	1-45	151,555	82.2
	Total	1,500,446	93.7 av.



GENERAL MOTORS LOCOMOTIVES

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS — LA GRANGE, ILL.

RAILWAY AGE

Popular Understanding of Economic Principles

It has been wisely observed that "nothing fails like success." Once a sound political or economic principle becomes definitely established and crusading in its behalf ceases, people accept the comfortable results as something given to them by nature, and quickly forget how they were brought into being and must be defended if they are to endure. The beneficiaries of economic freedom in those parts of Europe where it formerly existed lost their understanding of the forces necessary to maintain freedom, and, as a consequence, have lost it. North America also fell asleep at the switch, but, as the recent elections suggest, seems to have shaken off slumber in time to avoid the catastrophe which has engulfed most of the rest of the modern world. A battle has been won, though—not the whole war, as current labor troubles plainly indicate.

New Deal's Unintended Contribution

Viewed over the long term, the New Deal may turn out to have been a well-disguised blessing, in that, while deprecating freedom, it was nevertheless unable to reach its goal quickly. By being forced to proceed slowly with its destruction, it not only awakened widespread opposition, but allowed its antagonists sufficient time to arm and to work themselves into trim adequate for battle against a foe far more formidable than ever the New Deal was. The New Deal, that is, forced people who did not like it to inquire into why it was wrong; and into using the results of such inquiry as arguments with which to recruit more and more opponents.

It was the New Deal that took Samuel B. Pettengill out of Congress and put him to writing effective and popular homilies on political and economic questions for dissemination in the press and on the radio. It was the New Deal which inspired the widespread educational programs of the National Association of Manufacturers and the Chamber of Commerce of the United States; and occasioned the wholesome literary efforts of such writers as E. M. Queeny, Henry M. Wriston, F. A. Hayek, Ludwig Von Mises, George Terborgh, Peter Drucker and Emerson P. Schmidt. Without intending to do so, the New Deal awakened the missionary zeal of a host of valiant and conscientious citizens of whom Vice-President L. E. Faulkner of the Mississippi Central Railroad with his "Bill Smith" letters is typical.

Prior to the time of the New Deal, such vast and palatable exposition of the precepts which must be obeyed, to obtain and retain the comfort and strength achieved by the people of this continent, was almost wholly lacking. People were prosperous but they did not know why—and business and political leadership, as a consequence, fell through ignorance into the departures from principle which brought on the 1929 debacle and the New Deal. The interpretation of current economic events in the light of scientific economic principles, of course, has gone on in some places, including the pages of this paper, for a generation or more, but the audience reached by a leading publication in a single major industry or even several industries, while substantial in size, is still not large enough to dominate nation-wide business and political thought. Effort on this scale can kindle a fire but can not supply all its fuel too.

Widespread exposition of these principles, if it is to be ultimately successful, must be wary of omissions and inconsistencies in its presentation. As public understanding of these issues increases, public ability to detect and expose departures from principle likewise increases; and the revelation of behavior by spokesmen for free enterprise which contradicts the principles they profess will certainly injure the reputation and diminish the influence of all who speak for freedom—in the same way that the whole railroad industry is blamed when a ticket-seller is surly, or that crookedness of some union leaders persuades many people to suspect crookedness in all of them.

Principle Ahead of Profit

Unless an exponent of free enterprise principle is willing to follow his doctrine where it hurts him, as well as where it feathers his nest, he is not really defending principle at all, but is simply engaged in the unprincipled pursuit of selfish advantage—and is morally and logically in no better position than a socialist or the most reckless of the union leaders. The test for authenticity in the advocacy of free enterprise in transportation is the attitude of the spokesman on the matter of subsidies. As Henry Hazlitt explains in his remarkably clear and irrefutable "Economics in One Lesson:"*

"It is obvious in the case of a subsidy that the tax-

* Published by Harper & Bros., New York, price $2.

payers must lose precisely as much as the X industry [i.e., the industry which is subsidized] gains. It should be equally clear that, as a consequence, other industries must lose what the X industry gains. . . . Capital and labor are driven out of industries in which they are more efficiently employed to be diverted to an industry in which they are less efficiently employed. Less wealth is created. The average standard of living is lowered compared with what it would have been."

Yet the whole transportation industry, except the railroads and pipe lines, is shot through with subsidies. For example, we have a prominent manufacturer of highway rolling stock who continually demands larger appropriations for highways, combined with minimum payments for highway use—and who has even employed a professor to write pamphlets in the casuistic attempt to explain that expenditures upon highways made from general tax funds rather than from collections from the users of highways are not really subsidies; in short, that a crow is white. This same manufacturer is quite energetic in denouncing the coercive acts of labor unionists; and he chides other business men for having "taken their beatings [from the unions] without fighting." He quite properly objects, that is, to the unions having secured from politics the power to exact wages and working conditions from him at a level higher than he is willing to concede—but he sees nothing but good in coercing taxpayers to pay a part of the cost of highway transportation.

Government Meddling Has Its Price

The truth of the matter is than *any* intrusion of government into business, arbitrarily pushing some prices either upward or downward, inevitably condemns the public to a reduced supply of the goods it most desires, i.e., such intrusion reduces the national wealth and income. Mr. Hazlitt discusses in his book a number of such invasions of government into the economy—all equally contradictory to the principle of economic freedom, but each of which has a group of defenders who demand one of these favors for themselves while insisting that parallel concessions be denied to other groups. Some of these intrusions are: public works to "provide employment;" government credit for borrowers whom private agencies are unwilling to accommodate; "spread-the-work" schemes (e.g., the proposed 30-hour week); protective tariffs; an export trade hot-housed by government loans; "parity" prices; subsidies; "stabilized" commodity prices; government price-fixing; minimum-wage laws; coercive efforts to raise wages; currency manipulation to raise the price level.

Genuine free enterprise of the kind that put North America economically far ahead of the rest of the earth rejects all these devices, while socialism accepts them all. And socialism can be achieved just as surely, piecemeal, by granting these concessions one by one to a large list of pressure groups, none of which favors the whole list, as it can by adopting the whole kit and caboodle of them at once—as the British have done. Such New Dealers as Henry Wallace and some of the more arrogant union leaders are not the only pew-holders in the temple of free enterprise whose doctrinal regularity would stand some looking into.

Nationalization Nearer in Great Britain

The Labor government of Britain has finally introduced in Parliament its long-threatened bill calling for the nationalization of the railways, canal carriers, and long-haul truck lines, to be effective January 1, 1948. Full details of plan are not yet available, but not long ago the minister of transport announced that the bill, when introduced, would provide for reimbursement of the owners of the railways with government bonds on the basis of the market prices for railway securities prevailing either (1) the first week in November or (2) in the first half of 1945, before the present government's election, whichever were higher.

Some London financial writers have appraised these terms as anything but generous, pointing out that the one million owners of railroad property valued at £2,000,000,000 will receive for it about half that much in government bonds and their income will be cut almost in half too.

If the British people choose to forsake the capitalist system which their country originated, and under which it attained world leadership in commerce, they have the right to do so without advice from this side of the Atlantic. But the development is disquieting because the kinship between British and American institutions and philosophies of government has been so close, and because enemies of private enterprise will inevitably misinterpret socialization of the British railways to the unwary as a "failure" of free enterprise, which of course it is not.

The four British railways have urged the government to delay their nationalization at least until after a public inquiry has been made into their record of achievement and their present condition, as well as into what definite prospects for improvement government ownership can offer. Without arguing the alleged virtues of a planned economy, the carriers ask whether this is a good time to make the experiment, particularly in an industry already subject to more controls and regulation than any other. Their difficulties during the war and since, they contend, are essentially the result of two conditions for which the government is responsible, and which it could correct by measures less revolutionary than nationalization. These conditions are, first the provision at the taxpayers' expense of highways on which trucks are operated in competition with railroads providing their own tracks, and, second, the railroads' impaired credit position—not unrelated to their payment to the government of some $700 million of war-time "profits" and a serious embarrassment at a time when much new capital is required for the improvement and enlargement of railroad facilities.

While joining the other roads in this expression, the London & North Eastern has supplemented it with another proposal, that is, that the government purchase the fixed properties of the railroads, then grant long-term leases to the four operating companies. This suggestion, of course, is similar to one made in this country some five years ago in a National Resources Planning Board report.

The Labor Party, it is evident, will pay no attention

to the railroads' recommendations, any more than it did to the joint proposal of railroads and truckers for coordination of road and rail freight services which has just been bluntly rejected. Fighting state ownership and operation with their backs to the wall, the British railways will doubtless get considerable support from the opposition party (i.e., Conservatives) in Parliament, but so far they appear to have received little aid from the rest of industry, which probably feels safer for its own skin in seeing the socialist dragon concentrate its attention on such a large and undigestible meal as the transportation business. The moral of the plight of the British railways seems to be that the time to educate the electorate in the virtues of free enterprise is before rather than after they have put an all-out socialist government into power.

Repair Tracks Can Increase Car Availability

Car-repair tracks deserve more attention than they are getting—in the interest of faster movement of freight to destination and also in making available a larger number of badly needed freight cars and more car-miles per day. It can, indeed, hardly be questioned that entirely practicable increases in the effectiveness of working at most repair tracks would go a long way towards offsetting current freight-car shortages.

Car-repair forces, including men in the ranks, are aware of these possibilities; and at a recent car men's meeting cited a number of specific steps which might be taken to increase freight-car availability. For example, many cars are being shopped for defects which cannot be repaired except by the car owner and the proper solution is to card these cars "Home when empty for repairs. Do not reload." Transfer cars with similar defects should also be carded for return to the owner and more careful inspection of these cars at originating points would prevent most of them from being loaded, with attendant delays and expense.

Freight cars overdue for air-brake cleaning are received every day on repair tracks, and a check of the dates shows that they have recently been on repair tracks for repacking journals and reweighing. The brakes should have been cleaned when the other work was done to avoid an extra trip to the repair track. Again, cars are sometimes sent to the repair track for wheel changes with a comparatively new wheel and a badly worn wheel in the same truck. This, of course, points to the need for a thorough check of all important truck parts and the making of necessary repairs whenever cars are on the repair track for wheel changes.

Recently repacked boxes with journal bearings or wedges worn beyond the condemning limit are often found; also spring planks and other truck and car parts with temporary repairs which hardly last to the next terminal under the heavy pounding they get in modern fast service. Coupler height is another detail which needs checking on all cars when on repair tracks to avoid subsequent shopping for this defect.

An adequate supply of up-to-date facilities and tools is necessary for efficient repair-track operation and it will usually be worth while to review the recommendations of local car supervisors along this line. If they are to perform successfully the important job entrusted to them, then their requests for manpower and essential materials must receive serious consideration and appropriate action. Perhaps more than any other one thing repair track forces need the full interest, support, and personal encouragement of higher railway managements in the vital work they are doing.

C. T. C. Rather Than Automatic Block Signals

As applying to territory not now equipped with signaling, the trend during the coming years should be to install centralized traffic control, including signals to authorize train movements, rather than to install ordinary automatic block which necessitates the continued use of timetables and train orders. For example, during the past few years the Louisville & Nashville has installed centralized traffic control in four extensive territories or subdivisions, and the point of special interest, as explained in an article elsewhere in this issue, is that the projects were designed to eliminate certain parts and signals which would have been required with straight automatic block, so that these savings helped to offset the added cost of the centralized traffic control machine and code apparatus.

An important item of this nature was to eliminate passing tracks which would not be needed with C. T. C. but which would have been retained with automatic block, and, therefore, would have required the corresponding number of head-block and intermediate signals for normal-clear aspects. On the 107-mile installation between Lebanon Junction, Ky., and Sinks, there were previously 24 sidings, of which 11 were equipped with C. T. C.-controlled signals, 3 were left in place as house tracks, and the remainder were removed. With the C. T. C., the station-to-station blocks extend from one equipped siding to the next, although there may be a non-equipped siding in the overall block.

Another item is that the number of intermediate signals is reduced as compared with straight automatic block. For example, in conventional single-track automatic block, intermediate automatic signals must be staggered twice train stopping distance to provide head-on protection. With C. T. C., the station-leaving signals afford head-on protection so that the number of intermediate signals can be reduced to those required as distant signals and for permitting following train movements in station-to-station block as determined by the volume of traffic.

On many single-track lines handling a medium number of fast through trains, analysis will show that an installation of centralized traffic control rather than conventional automatic block will permit removal of sidings and reductions in the number of signals which will offset a large part of the extra expense; and, of course, the C. T. C. accomplishes much more than conventional block signaling in saving train time and in reducing operating expenses.

What About Our Railroad Stations?

Outside architect raises this question in address on modern architecture before railway building officers and points out numerous features of good design

By J. C. SHERRICK
Partner, Holabird & Root, Architects

THE recent war was one of transportation superiority. Without the superiority of the United States in transportation, in which the railroads were supreme, we surely could not have won. The war, however, accelerated developments and discoveries and has so stimulated the desire and need for travel that rail transportation is now facing one of the most challenging eras in its history. It is an era in which the supremacy of the railroads in overland passenger transportation — and perhaps also in freight—will be severely tested.

It seems apparent that the railroads cannot hope to match the speed of travel by air. It is also probable that the railroads may not be able to match the cheapness of travel by bus. But in comfort and convenience, and in carefree, and even delightful, travel, the railroads can certainly excel. The newer trains already excel in these respects and, no doubt, those now being designed will offer even more attractive features. But what about our railroad stations?

Most of our railway stations are of another era—an era when the supremacy of the railroads was unchallenged. Then, the traveler had no choice and was compelled to go to the station for his transportation needs. Similarly today, when we are summoned for jury duty or by the income tax collector, or are called to court to pay a fine for illegal parking, we are compelled to go, but we go with reluctance and find that little attention is paid to our convenience. We enter buildings which may be designed to surround officialdom with grandeur, but in which we are expected to find our bewildered way as best we can. We climb stairs; we wait in line; we depart with relief; and we do not return unless we have to. Likewise, the large railway stations of the past era were designed to enthrone the machine and impress the traveler. The traveler, duly impressed, was expected to endure some inconvenience and discomfort. The small stations of that era, built to a style attempting neither magnificence or comfort, were designed as humble servants of the machine to load passengers into trains with as little damage as possible.

An abstract of an address before the recent annual convention of the American Railway Bridge and Building Association in Chicago.

In the present new and competitive era the traveler is not compelled to visit the railway station because he has other choices of transport. The station must be made so inviting that he will be happy to enter it or else he will, with increasing frequency, choose some other way of travel, and the streamliner will lack its most important essential for successful operation—passengers. To be thus inviting, the new station must be designed not with the view to awe or impress the traveler, but to serve him. When entering the station, the traveler must be made to feel he has nothing further to worry about. From this point to his destination his way should be made easy and pleasant, and it is to modern architectural design, aided by modern methods and materials, that we must look to accomplish this highly desirable result.

Accessibility Is Important

Good architectural design will assure well-planned and easy circulation of patrons from the street to trains. The way must be made unmistakably apparent and necessitate minimum effort in buying tickets, securing information, or checking baggage. Where signs must be used as an aid to circulation, they should be designed to reassure the patron instantly as to his proper route, and should be so placed and worded as to make him feel that he is the guest of the railroad.

Also, good architectural design will aid considerably in making the somewhat annoying process of buying tickets more pleasant. Where tickets are purchased the railroad can demonstrate its concern for the travelers' welfare by providing features that will create an atmosphere of friendly interest and reassuringly efficient service. Since there is nothing about the process of preparing a ticket that requires concealment, the grilled hole-in-the-wall ticket window should disappear from most stations and be replaced by an open counter. Perhaps the design can be so arranged that the railroad can relieve the traveler of his handbag at this point and deliver it to him at the train by means of conveyor systems. Such systems have been much improved by modern invention and offer real possibilities for such a service.

Interesting Waiting Areas

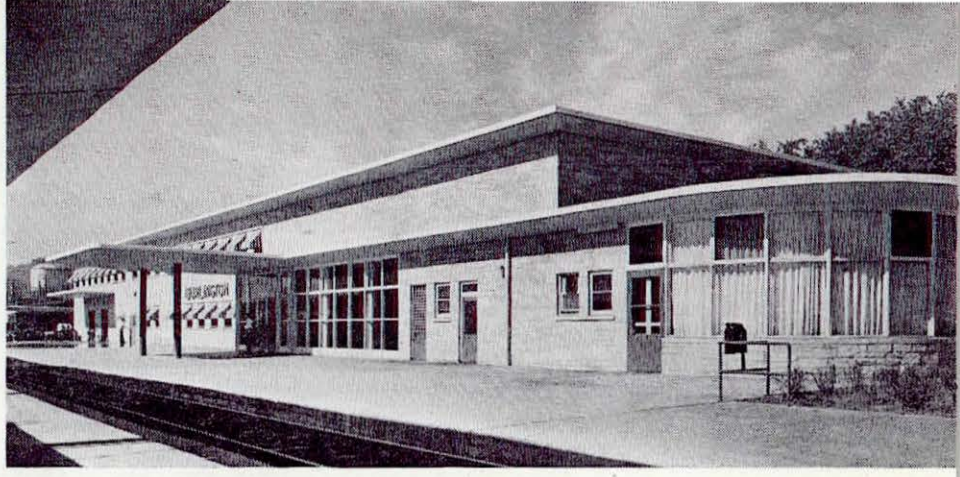
The facilities for passengers waiting for trains must be so planned that the time spent in them will be a pleasant introduction to a delightful journey. The surroundings should be made interesting. The lighting should be planned to be an integral and important part of the architecture and must be adequate for those who care to read. The chairs must be comfortable and inviting and arranged to accommodate passengers both singly and in groups. There must be something interesting to see for those who wish to use this part of their journey in strolling about. Here is an opportunity for planned and lively exhibits showing the advances made in railroading, to stimulate the passengers' interest, similar to the air lines' outstanding use of beautiful, illuminated maps as decorations and educational exhibits. The possibilities in the use of the radio, motion pictures, television, and recorded music should not be overlooked in plans to make the waiting period interesting to the traveler and, pursuing this thought, it is possible in large cities to make some arrangement with local art museums and public libraries for displaying exhibits of general interest.

Design Embraces All Features

Refreshment places should be conveniently located but their importance as a source of revenue should not be allowed to make them discordantly conspicuous. Their place in the architectural design as a whole must be studied in the planning and their decoration and character must conform and not compete with the architectural design of the station. Newsstands, too, must be planned with the architectural design so that the opportunity to examine their offerings is all a part of a pleasant experience of waiting for a train. Space for the care of infants and small children

has almost become a necessity in many stations, and is now provided in those of a number of larger cities. In new stations such a space should be so planned that these future passengers will be introduced early to the delights of railway travel by their mothers, who will wish that their own homes offered facilities as pleasant and complete.

As to eating places, they should be so designed as to forever erase the memory of the railroad lunch counter. A properly designed and well-conducted railroad station dining room can be a great



The passenger station of today must be of an architectural style that will please the eye of the traveler, as does this Burlington station at Burlington, Iowa

The time spent in a waiting room should be made a comfortable prelude to an interesting journey

Open ticket counters aid in creating an atmosphere of friendly interest and efficient service

deal more than an incidental service to the traveling public. Such a dining room can attract customers from among the non-traveling residents of a city, and such traffic offers an opportunity to publicize the pleasures of modern railway travel.

Offices, clerical and working spaces should be designed not only to create comfortable and efficient working conditions, but also to provide flexibility in arrangement to facilitate those alterations so often made necessary by changes in processes and personnel.

All of these results will be achieved not only by careful planning and arrangement, but also by the wise selection of available construction methods and materials. It is to be expected that

the basic structural materials—concrete, steel, brick, stone, and wood—will be used for many years to come. In some cases they have proved all too permanent in the rapidly changing conditions of our times. However, it is in equipment and accessories that great improvements have been made and further advances are to be expected.

Air Conditioning and Heating

Air conditioning for railroad stations is surely desirable if our new stations are to match our new trains in comfort. But the feasibility of air conditioning large stations has been made uncertain by peculiar difficulties. These arise from the vast size of the spaces and from the rapid and wide variations in the density of the crowds at stations, so that to date no reasonably practicable methods have been found for the proper distribution and control of the conditioned air. But new developments give some promise for the solution of the problem. New air-handling systems carry air through ducts at velocities of 4400 ft. per min., which is more than four times the velocity formerly considered the maximum. One new distribution system has an air velocity at the outlet nozzle of 12,000 ft. per min., making possible the distribution of air over a distance of about 240 ft. These developments mean that duct systems can be smaller and simpler, and outlets farther removed from the areas served. Work is being done on refinements in control system. We can even hope that the perfection of these various elements will make possible a reasonable system for air conditioning existing stations without too much alteration.

Panel, or radiant heating, is not precisely a new system because it was used by the Romans. But its modern developments have a special interest for designers of railway buildings. The huge waiting room of the Cincinnati Union Terminal, planned by Felheimer and Wagner, architects, is warmed by an application of the principle of panel heating. The roof and extensive glass areas of this room are double and warm air is circulated within the double construction, maintaining a comfortable temperature in this vast room without a single radiator. Panel heating provides comfort at comparatively low air temperatures and its claimed ability to maintain fairly uniform, comfortable conditions in drafty spaces where cold outside air is frequently admitted, makes it worth considering when selecting a heating system for stations or service buildings.

There are marked improvements in the design and variety of portable partitions, some of which are very attractive in appearance. In office spaces which are designed with level floors and flush ceilings throughout, they permit the quick and easy rearrangement of space without the fuss and dirt which usually attends such alterations.

In lighting, we are all much interested in the development of the gaseous tube, which is especially well adapted for incorporation as an integral part of architectural effects. Its low current consumption, low heat output and long life are also advantages not to be overlooked. It is at its best efficiency when fairly close to the object or space to be illuminated.

Double and multiple glazing, long used in the construction of railway cars, is available in several convenient forms of units. When combined with improved heat-resisting glass, it is a valuable aid in relieving the heat load in air-conditioned spaces and in maintaining comfort in other spaces. It may prove interesting in the construction of signal towers as well as other buildings.

The decoration and character of refreshment places must conform and not compete with the architectural design of the station

Spirit of Today Is Inquiring

These are but a few of the more familiar and proved systems and materials. These and many other developments, as they become available and prove themselves worthy, will be incorporated in new railway buildings, but it is only through the artistry of modern architecture that they will become integrated in the design to give expression to the new spirit with which the railroads must meet the new era.

Every architectural style has been modern in its day and has accurately reflected the spirit of its age. Since the spirit of today is an inquiring one, which is exploring new forms of energy, questioning established traditions, seeking new forms of social organization, and discarding old forms of trains for new and exciting designs, modern architecture will also explore and develop new and exciting ideas for passenger stations, so that the traveler of today, or certainly of an early tomorrow, will consciously, or instinctively, appreciate and approve those ideas as a true expression of his own spirit.

Prescribes for Successful Bargaining

Horning at Y forum insists unionists cannot thrive if investors are starved out—Asks for chairmen who have power to bargain—Answers questions from floor

AS the fifth in a course of eight weekly lectures on union and management relations, being conducted under the auspices of the Lackawanna R. R. Y. M. C. A. at Scranton, Pa., L. W. Horning, vice-president-personnel, New York Central, addressed the group on November 18 on the subject "Techniques of Negotiation," followed by a discussion period.

In opening his talk, Mr. Horning outlined briefly the history of federal legislation dealing with union-management relations on the railroads, and then went on to define collective bargaining in terms which would give consideration, not only to the immediate advantages being sought by employees, but also to their long-run interest in the prosperity of the railroad industry. He said in part:

"Ordinarily, when we speak of collective bargaining, we think first of the bargaining which results in our contracts or agreements. But it goes beyond that, because we bargain collectively and negotiate about claims, grievances and working conditions, as well as basic agreements. We should, I think, extend our collective bargaining beyond those fields and should concern ourselves about the welfare of our industry and its employees, and the welfare of our individual railroad and its employees.

"Railroad employees will not continue to be prosperous, successful and happy unless their railroads are equally successful. We should be agreed among ourselves upon many things for our common good, for example, equality of opportunity in the transportation field; equality of regulation and taxation, so far as that is possible—and we should be agreed with each other on working together to improve our service, to solicit more business, and to promote good public relations, because all this is just another way of promoting the welfare of railroad employees—job insurance.

"It is the owners of our railroads who have put up the money for rails, roadbeds, freight cars and locomotives. Millions of people have invested their money to the extent of approximately $25,000 for each job in the railroad industry. The owners are partners with the employees and management in this industry and each partner is entitled to a share in the earnings of the enterprise.

"It is possible, of course, for the employees with their great power to make their gains for a time at least, at the expense of the investors, but there is an inevitable corollary of this. If the money that people have invested in railroads will yield less than money they can invest in other lines; the investors will not continue to pour money into the railroad industry. They may replace a few of the things that wear out first to protect the small yield on their remaining capital; but in the long run they will not even bother to replace items that fall into obsolescence or decay. Thus the exploitation of capital by labor can at best be merely temporary.

"My viewpoint, therefore, is that in our bargaining we must not ask for more than our fair share as one of the partners. We must not ask the impossible, or even the unreasonable. And secondly, at the bargaining table we must act in good faith. By that I mean that a mere meeting with each other to talk, by way of complying with the Railway Labor Act which requires us to bargain, does not fulfill our obligation under the act, since without good faith at the collective bargaining table, there is no sincere desire to reach an agreement.

Negotiators Need Authority

"There can be no real collective bargaining, if by convention action of the union or otherwise, the hands of the representatives who meet with the representatives of management to do the bargaining are tied and if they are not free to give and take with respect to any matter which needs be the subject of an agreement. No union would long deal with a management representative who informed the union representatives at the outset that his superior officers or board of directors, or some other higher authority, would not permit him to bargain on this, that or another rule.

"My experience has demonstrated that at the bargaining table, where we make our agreements and settle our claims and grievances, *facts* are the hardest things to establish and agree upon and it is of extreme importance that we know the facts about the matters we are dealing with, also no 'meeting of the minds' can be reached. And wherever there be a dispute about the facts, it is of extreme importance that the parties make such investigation thereof as may be necessary to determine exactly what the facts are. Once the facts are known, an agreement can generally be reached.

"As we deal with each other, it occurs to me that we should keep the following things in mind.

"1. We should respect the rights of management, of employees, of the public and of the owners of the property. These four parties must be considered in our dealings.

"2. Bad feeling, personal animosities, and bad temper have no place at the bargaining table.

"3. The pound-the-table type is not a good bargainer. The best bargainer, in my opinion, is the man who keeps his temper, maintains an even disposition, and is willing to hear and analyze the points made by those on the other side of the table.

"4. Never seek an unfair advantage of the man with whom you are bargaining.

"5. Never try to trap the other fellow, because the trap sometimes springs on the wrong man.

"6. Be sure that the language we use to express our agreements is plain, clear and easily understood. Someone else who has not participated in the bargaining will have to interpret the agreements we make and those interpreters will look only at the language and know nothing of the background.

"7. Ask plenty of questions to be sure that all of us understand just what we are agreeing upon.

"8. In the handling of grievances, come clean. I think you will find that management is usually willing to do more for the man who comes clean than for the man who does not honestly confess his mistakes or who tells only part of the truth.

"9. Let us resolve when we start our bargaining that we are going to make an agreement if we can. It is our duty under the law to do so. The easy way out, of course, is to adopt the 'Let-George-do-it' attitude, knowing that, if we cannot reach an agreement ourselves, we can always go to mediation, arbitration or perhaps get an emergency board and then we can say that someone else forced the agreement upon us. That may be the easy way but it is not the right way or the best way.

"10. What I have said of the obligations of management and labor at the collective bargaining table applies in a large degree also to the representatives of labor, as they deal among themselves in jurisdictional disputes. The railroads and the public all too frequently are found in the middle in such cases.

"11. When we have made an agreement, let us accept and fulfill our obligation to maintain the integrity of it. Management representatives should be just as willing and just as anxious to see that the employees receive all the benefits of the agreement as they are to insist that the company receive its just dues and this principle applies equally to the representatives of labor.

"Because Congress has power under the commerce clause of the Constitution to exercise control of practically every phase of railroad activity, the railroad labor organizations have made increased use of their political power until now it is scarcely less than their bargaining power, These powers should not be lightly used. The public interest, the welfare of the industry, and the long-range welfare of the employees must ever be kept in mind.

"There are no techniques of collective bargaining that may always be relied upon to work. Its fundamental purposes are to promote friendly discussion and to substitute negotiation for the strike and lockout in settling differences between employers and employees. Nowhere is it more important that these purposes be achieved than on the railroads where a suspension of operations ordinarily affects the public more directly and to a greater degree than do similar interruptions in most other industries.

"The object of collective bargaining, like that of the complete industrial relations program, is to establish a sound and stable relationship between employees and management. We cannot establish such a relationship by blindly refusing to grant any demand made, nor can it be established by simply yielding to demands that are made upon us. Neither can it be established by engaging in what might appear on the surface to be a good trade.

Fairness to All Parties

"A good agreement is an agreement that is fair, one with which the parties generally are satisfied, and one which does not chain the hands of management nor take away from the employees their just dues. By no means is an agreement good or fair which will penalize the public by so interfering with the operations of the carrier that the service which the carrier must render to the public is inferior or unduly expensive. Some of our agreements do just that I am afraid. If management does not retain the authority and rights that it must have to manage the railroad, it can no longer effectively participate in the collective bargaining process.

"Management must never seek to undermine the union, which represents its employees, nor should the union seek to undermine the management or take away from it those rights which management must enjoy if it is to manage the business successfully in the interest of the employees, the owners and the public. If management's right to manage the business is limited, then management's responsibilities for successful operation must likewise be limited. There is the right to employ, the right to discharge and discipline, and to promote men to positions of management. I do not mean an arbitrary exercise of those rights but a fair exercise of them. I do not mean that seniority should be disregarded. As promotions are made from the ranks, it is merely one of the factors to be considered and should not be the controlling one.

Rights of Management

"The training of employees is another right which management should have, as well as the right to establish new classifications as new methods or new machines are developed to promote the welfare of the industry. For the handling of grievances, both employee representatives and management should be concerned about providing an adequate grievance procedure to permit consideration of employee grievances by various levels of supervision, from the immediate foreman to top management. The grievance procedure is the heart of a collective bargaining agreement, and if grievances are not handled properly, promptly and effectively the agreement becomes ineffective. The grievance machinery should be considered as a protection to both the union and management, and at the same time as a device for increasing the happiness of the employees on their jobs.

"The time has come I think when we ought to give serious consideration to the effect of existing outmoded rules upon the efficiency of our operations and service. Make-work rules, however obtained, by collective bargaining or otherwise, or make-work laws obtained by the political strength of employees, are in the long run inimical to the best interests of labor and the industry. I refer to rules or laws regulating the number of men in a crew or on a machine, or requiring the employment of unnecessary men to do a certain job.

"From the standpoint of the community, make-work rules are a wasteful way of dealing with the unemployment caused by intermittent work, technological changes, etc.

"Make-work rules are a dangerous expedient when dealing with unemployment, however caused. A former attorney general of the United States said in 1940 that the Department of Justice has taken the position that forcing an employer to hire increased labor may be a restraint of trade under the Sherman Act. Finally, make-work rules are likely to be paid for by wages lower than the union could otherwise obtain, because the disadvantages which the union can afford to impose on employers are definitely limited.

"Average actual weekly earnings of all railroad employees (excluding executives, officials and staff assistants) in June, 1946, amounted to $58.54, about $13.54 more than I made in a *month* when I entered the industry 30 years ago. [The speaker here presented a tabulation of weekly wages in twelve industries, none of them showing earnings as high as those of railroad employees.]

"Other advantages enjoyed by railroad employees are a reasonable permanency of employment; the good reputation of our employers; opportunities for advancement; pass privileges; good working conditions; interesting employment; an essential, useful, romantic industry; seniority; good labor relations; a retirement system not enjoyed by employees of any other industry; an unemployment insurance system and many other advantages that come to us by reason of the fact that we are railroad employees.

"If we were to go down through the list of things which an employee wants from his fellow-employees, from management, from the public, from his union and from the government, we would find that management wants, and the public wants, and government wants, and the union wants very largely the same things.

"How can all of us attain our aims? Well, simply by working together as partners should. There is no secret, in my opinion, about good labor relations. In order to have good labor relations on a railroad or in a grocery store or in a factory or any other establishment, the employer must like his employees and the employees must like their employer. There are a million and one things that each of us may do to make the other fellow like us. I shall not enumerate them, but try out on your employer sometime, some of those arts and devices you use to make the members of your family, and your neighbors, and your friends, like you.

"I have great faith in the future of our industry. I am proud, as you are, of a country in which all of us have equality of opportunity, proud that we are free men. But freedom just does not happen. Persons must know how to be free. We must deserve it."

Answers Questions

Following the address, the speaker answered questions from the floor. These questions and answers are reported in the following summary, which is not a verbatim account but aims, for the sake of brevity, to give the intent of the queries and replies rather than their specific wording.

Q.—Why didn't collective bargaining negotiations avert the 1946 strike? A.—There was no genuine negotiation; the general chairmen had no authority to negotiate; all they were authorized to do was to bring back a "Yes" answer.

Q.—How get rid of fear on the part of employees when management is always seeking to reduce forces? A.—Management is not trying to decrease

forces, but to keep down costs of service so we can attract more business and, hence, provide more jobs. Management's duty is to secure economy, and, if it is successful, railroad traffic and railroad jobs should increase.

Q.—What are the advantages of improved equipment to the employee if it does not bring him shorter hours with no reduction in pay? A.—The railroads cannot hold their own in competition unless they constantly give the customer a better bargain for what he pays. Unless the railroads can hold their own in competition, railroad jobs become insecure. Improved equipment is "job insurance" for railroad employees whether hours of labor are reduced or not.

Q.—What part can labor play in relieving the railroads from unequal taxation? A.—Railroad employees help elect state legislators and congressmen, and these are the people who vote to provide competing agencies of transportation with free roadways at the taxpayers' expense. When railroad employees are as earnest in supporting legislators who will end this inequity to the railroads as they are in supporting legislators who are "right" on so-called "labor legislation," these arbitrary political handicaps against the railroads will either vanish or be greatly reduced.

"Don't Care" Attitude

Q.—How do you explain the recent reduction in productivity of the average railroad employee? A.—Lack of experience on the part of some of the younger men and an attitude of "don't-care" on the part of too many of them.

Q.—Isn't it unfair to compare weekly wages of railroad employees who work 48 hours with those of factory workers who work only 40 hours? A.—The railroad unions work 48 hours because they asked to be allowed to do so, preferring higher earnings to shorter hours. A man is better off working 48 hours a week at $1 per hour than he would be working 1 hour at $10.

Q.—Should unions be required to open their books the way the railroads do and should the Sherman Act apply to them? A.—Railroads have to do business in a showcase. It is hard for abuses to exist where all important facts must be made public. Publicity for union finances would be a protection for union members just as publicity for railroad finances is a protection for railroad owners. There have been abuses by management and abuses by unions and at the present time those on the part of the unions outnumber those for which management is at fault. The Sherman Act was enacted to protect the public against monopolistic practices and this act cannot grant this protection unless it is applied to whoever engages in such practices, whether management or unions.

Q.—It is the poorer class of people who have the larger families and who, consequently, could absorb a larger national production if they had the means to purchase the goods and services they lack. What is management doing to improve the lot of this class of people? A.—The best answer to that question is that the condition of such people is improving all the time. It is far better now than it has ever been before. It will improve still further if management is successful in its efforts to increase production and keeps costs low, so that prices will be within the reach of people with low incomes.

Q.—Do you approve the organization of foremen? A.—I do not, but some of them are organized anyhow. If it is reasonable for foremen to organize, then why not general foremen? Why not master mechanics, trainmasters and superintendents? Why not general managers, vice-presidents and, finally, the chief executives? When you organize management, you go a long way toward eliminating management — and private enterprise can't function if management is eliminated. You can't have a bargaining table if everybody sits on the same side of it.

Q.—Are there agreements between unions and managements which are not lived up to? A.—There are. Sometimes management tries to evade the spirit of an agreement by insisting upon a literal interpretation. At other times, both management and employees may understand perfectly well what an agreement means, but a claim is made in the hope that some referee who knows nothing about local conditions will read a meaning into it which was never intended by those who made the agreement in the first place.

Q.—Are the coal miners right in going out on strike at the present time? A.—Free speech is a right which a man enjoys only to the point where he does not use it to injure others. The right to strike is similar—and should not take precedence over the right to work. The public interest should be superior to that of any one group, and the time has come to find out whether John L. Lewis or the American people are the rulers of this country.

Q.—Is it right for management, when conferring with representatives of employees, to resort to personalities in the effort to embarrass them in presenting their claims? A.—It is not right. Neither side should deal otherwise than courteously with the other. Banging the table is wrong for either side.

Q.—What do you think of the anti-labor laws which have been enacted in some states? A.—Is a law which protects a man's right to work or which enforces publicity regarding union finances really "anti-labor," when actually it safeguards the rights of the workingman, as well as those of the general public?

Q.—What is the position with management of the employee representative who "sticks his neck out" to press an unwelcome grievance? A.—If the grievance is well founded, the employee is not "sticking his neck out" when he presents it. It is better to bring these complaints out into the open and get them settled than for the employee to keep them to himself and harbor resentment.

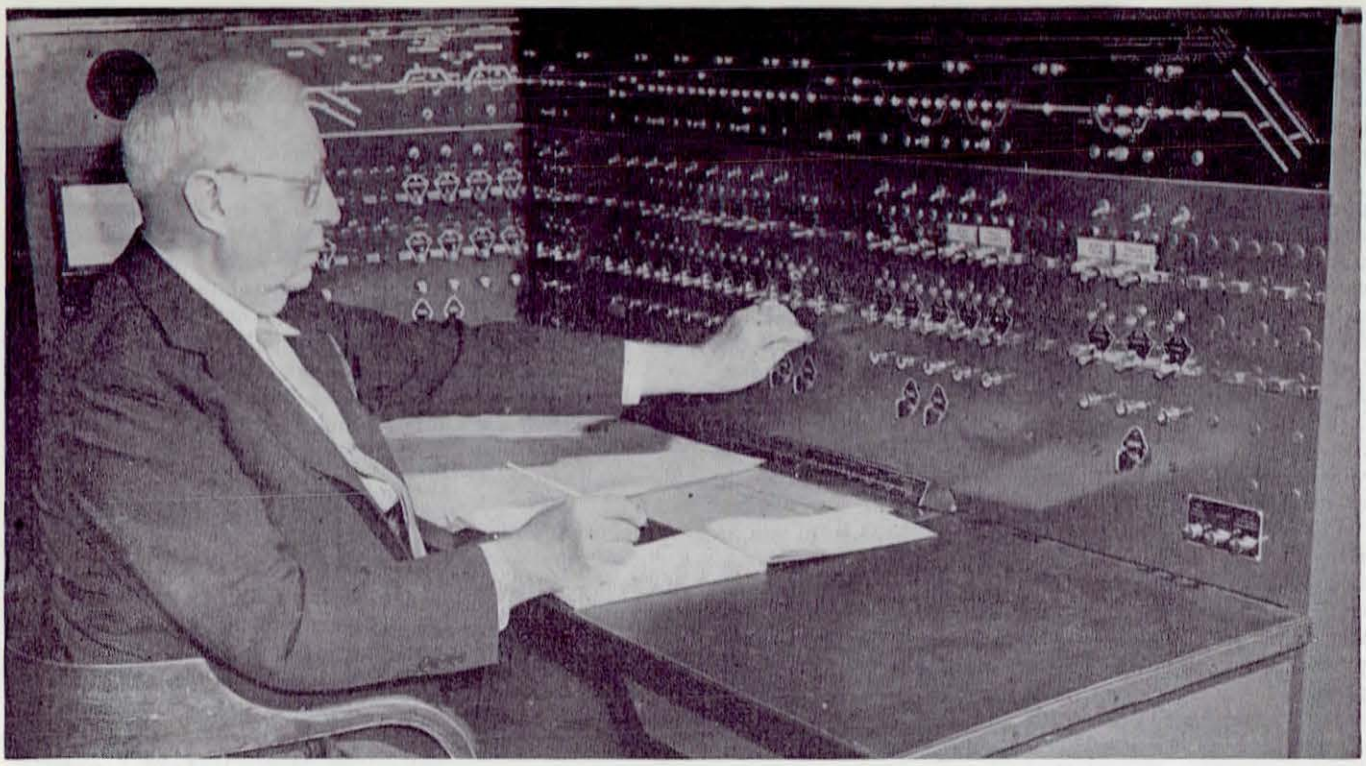
"Incentive" Pay's Advantages

Q.—How can productivity of employees be increased? A.—By each employee trying to do better work, and by teaching younger employees the proper and economical way of doing each job. The employee can find ways of doing a better job if he will "use his noodle." The adoption of "incentive" pay would help. If I were a union officer I had rather have 100 men as members who were making $1.50 per hour under "incentive" pay, working on a freight platform, than twice that number earning 75 cents per hour at straight time.

Q.—Will management learn that it going out on strike at the present time? organizations? A.—I have learned not to try to undermine them; and I didn't learn by experience. The law requires us to deal with each other and it should be a matter of honor with both sides to abide by the spirit, and not merely the letter, of that obligation. I do not know of any railroad management which is seeking to undermine the labor organizations.

Q.—Do you favor the union shop? A.—I do not. The right to work is a fundamental right, and the union shop is a device whereby a man's right to work may be taken away from him. I believe for this reason that the union shop is un-American.

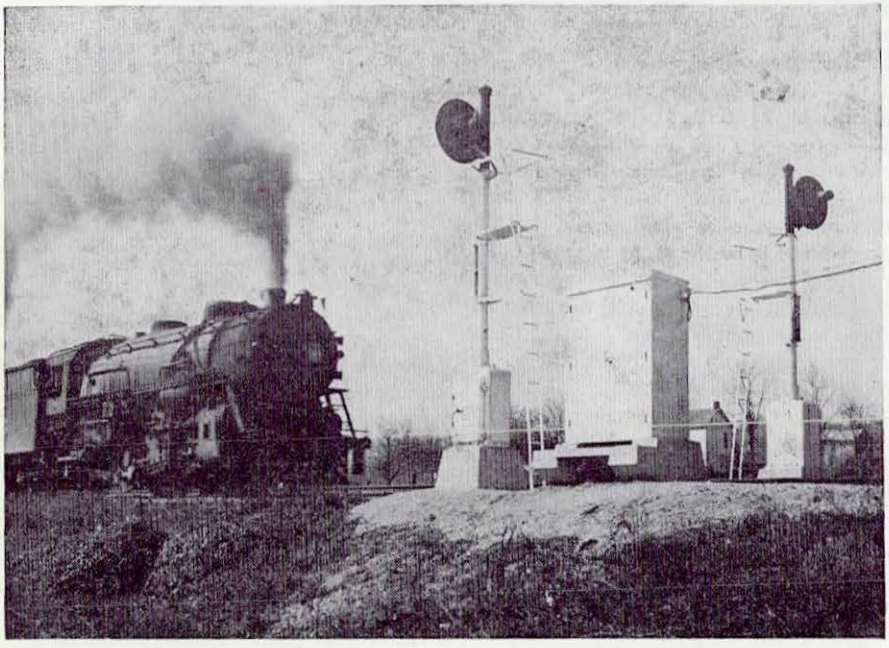
ROUGH SPOTS "WHITEWASHED".—The Great Western (Great Britain) has come up with a new "wrinkle" in methods of track inspection. To the rear end of one of its trains was attached a special coach from which engineers were able to inspect every yard of track between Paddington station, London, and Birmingham. Recording instruments plotted the journey, and not only the slightest irregularity in the track was spotted, but whitewash was dropped automatically on any section requiring special attention from track workers. Other such inspections have been scheduled to cover additional Great Western trackage.



The control machine is located in Louisville about 29.7 miles from the nearest end of the C.T.C. territory

L. & N. Installs C. T. C. on 107 Miles

Several sidings removed and the number of intermediate signals reduced to a minimum thus adapting the project to the operating requirements of medium traffic volume



Fewer intermediate signals were used on this project

THE Louisville & Nashville has installed centralized traffic control on 107 miles of single track between Lebanon Junction, Ky., and Sinks, Ky., which is territory not previously equipped with automatic signaling. Lebanon Junction is 29.7 miles south of Louisville on the through route between Louisville and Nashville, which extends on to Birmingham, Montgomery, Mobile and New Orleans. Sinks is 152 miles south of Cincinnati on another important route of the Louisville & Nashville which extends from Cincinnati to Atlanta. Thus the new C. T. C. territory between Lebanon Junction and Sinks is an east-and-west connecting link between the two major north-and-south routes.

The trains operated over the Lebanon line originate and terminate at Louisville and at Corbin, 35.3 miles south of Sinks. The passenger trains run through between these terminals, with the same make-up, but some of the freight trains pick up and set out cars

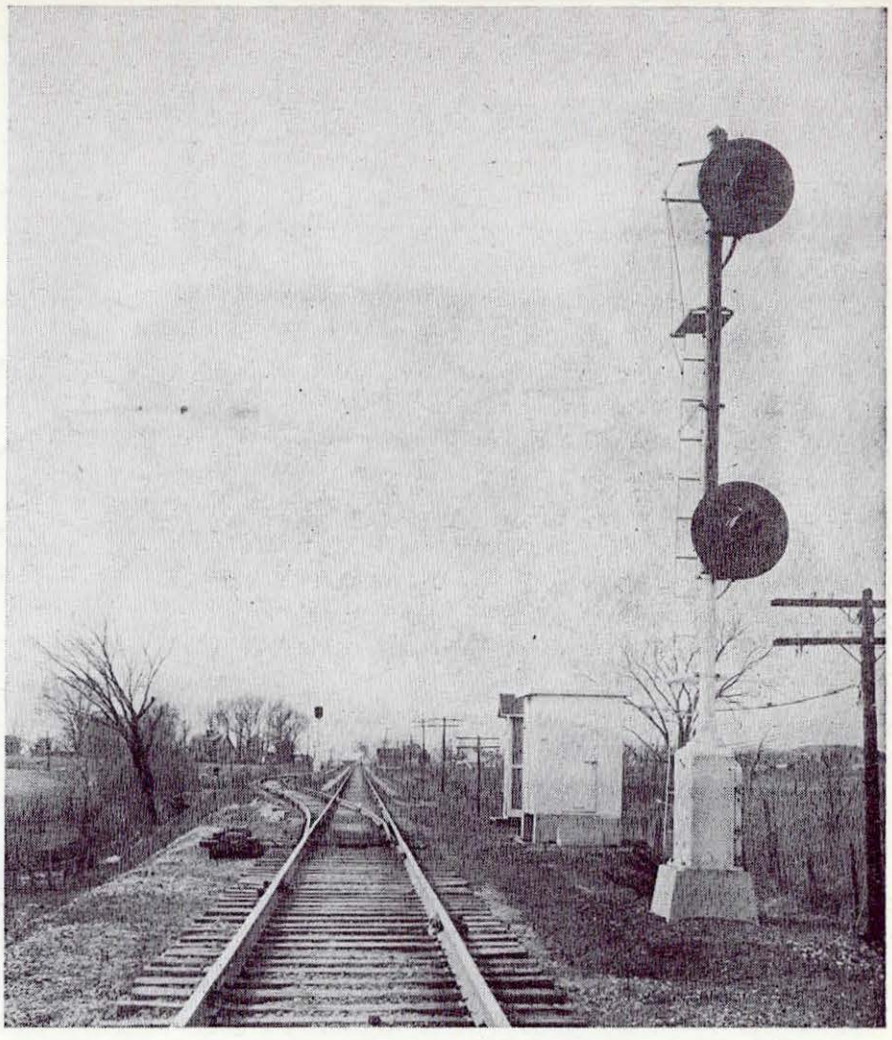
at Lebanon Junction for connections. Two passenger trains and two high-ball merchandise through freight trains are operated each way daily, while the number of extra freight trains depends on the volume of coal and other traffic. The total number of trains ranges from 8 to 10 each way daily. A large percentage of the traffic is loaded coal cars westbound and empty coal cars eastbound. Distilleries are located at several of the towns on this line, and, therefore, considerable work is done by the two local freight trains to deliver grain to these plants and haul away the finished products.

Why C. T. C. Was Installed

On the 100 miles between Lebanon Junction and Brodhead the railroad crosses hilly country with numerous curves ranging up to about 3 deg., and short grades ranging up to about 1 per cent. On the 15 miles between Brodhead and Sinks, the country is mountainous with numerous 3-deg. curves and several up to 5 deg., with a few 7 deg. The grades are rolling, and range up to about 1.3 per cent. No automatic signaling had been in service on this line previously, and, therefore, track-circuit-controlled signaling of some type was desirable as a means to improve safety for train operations.

Based on the benefits of centralized traffic control on several previous installations on the Louisville & Nashville, a decision was made to install C. T. C. rather than ordinary automatic block signaling on the Lebanon line, and to take the necessary steps to minimize the materials required so that the project as a whole would be in proportion with the volume of traffic and operating conditions on this territory. The important advantage of centralized traffic control is that train movements are authorized by the indications of signals which, together with the power switches, are controlled by a machine in the dispatcher's office at Louisville, 29.7 miles north of the west end of the C. T. C. at Lebanon Junction.

If straight automatic block signaling had been planned, no sidings would have been removed, but, based on experience on previous projects, Louisville & Nashville officers knew that fewer sidings were needed with centralized traffic control. Of the 24 sidings previously in service on this 107 miles, only 11 were equipped with semi-automatic C. T. C. controlled signals for authorizing train movements. Ten of these sidings were equipped with switch machines, and the remaining one consists of a lap siding layout converted to double track with spring switches. The map indicates the locations of these C. T .C. controlled sidings at Boston, New Haven, Loretto, Lebanon, Rileys, Cozatt, Junction City, Crab Orchard, Brodhead and Mt. Vernon, the short section of double track being at Hemp. The old No. 10 turnouts at these ten sidings were replaced, using No. 16 turnouts at both ends of Hemp and No. 12 at the remaining locations.



Typical station-entering signal and power switch at end of a siding

Six old sidings were removed: at Santos, Mohawk, Amboy, Brumfield, Maywood and Maretburgh. At St. Mary's the siding was converted to a spur by removing one of the main-track switches and turnouts. The siding at Parksville was left in place, but the hand-throw stands were left in service, no signals being required at this siding. The same practice was applied at the siding at Pine Hills.

At Hemp there was previously a lap siding layout, and when changing to

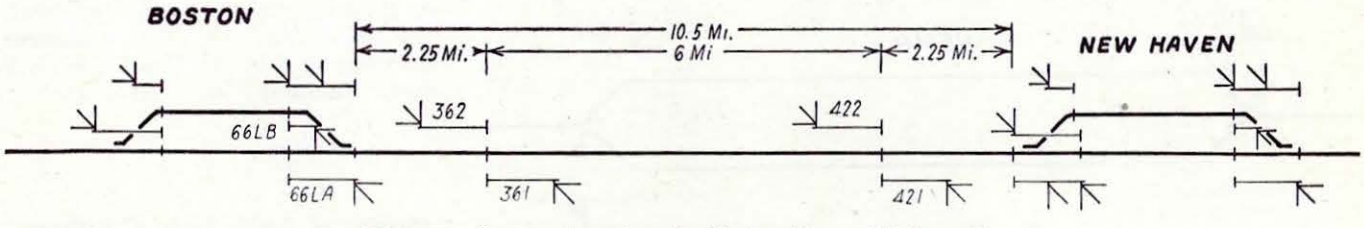
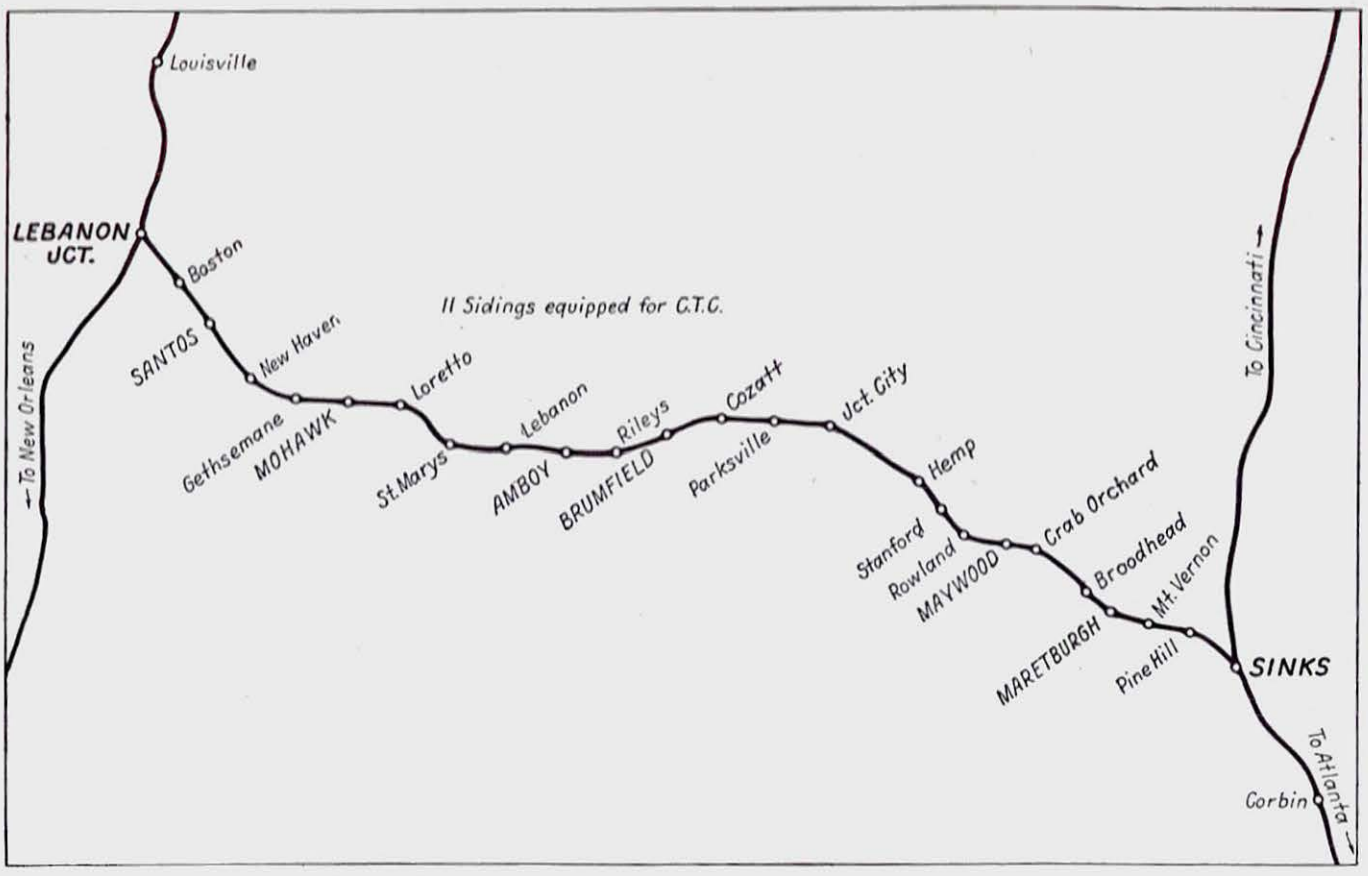


Diagram showing how two double locations of intermediate signals were omitted between Boston and New Haven



Map of the C.T.C. territory between Lebanon Junction and Sinks. The names of the power operated C.T.C. sidings are *above* the line representing the railroad

C. T. C. the necessary track changes were made to convert this layout to a section of double track 8,000 ft. long with No. 16 turnouts. As shown in the diagram, the switches are normally set to run trains on the right-hand track, and spring switch mechanisms were installed so that trains need not stop at either the entering or leaving end. Semi-automatic signals 28LA and 30RA are controlled by the C. T. C. system. The reverse running dwarfs 28LB and 30RB are fixed to display red only. The entering signals 1022 and 1011 are straight automatic signals. Ordinarily trains make meets on this section of double track, but not passes.

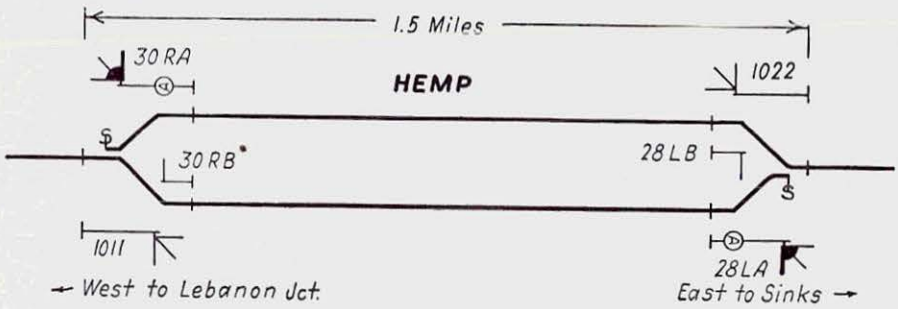
In addition to the 10 power sidings and the short section of double track, the C. T. C. system also includes the operation and control of the junction layout at Sinks, which has one single switch and a crossover, together with the customary home signals. The distance from this Sinks layout to the control machine in Louisville is 136.9 miles, which is an unusually long mileage for controlling such a layout.

Saving in Number of Signals

If straight automatic block signaling had been installed, double signal head-block locations would have been required at all of the original 24 sidings because all sidings would have been retained. Thus the fact that sidings could be removed with C. T. C. was a help in reducing the cost of the C. T. C. as compared with automatic block.

Another important fact is that in a normally-clear straight automatic block system, the intermediate automatic signals must be located to provide head-on protection, whereas in a C. T. C. installation, the station-leaving signals provide head-on protection; therefore, only enough intermediate signals are required to serve as distant signals and to space following trains, depending on the volume of traffic and need for making following moves on close headway. The distance between the sidings at Boston and New Haven is 10.5 miles. The double intermediate location signals No. 361 and 362 are about 2.25 miles from the east end of Boston, and the double intermediate location signals No. 421 and 422 are about 2.25 miles from the west end of New Haven. This leaves about 6 miles between the two intermediate locations, thus saving two double intermediate locations.

This centralized traffic control was planned and installed by Louisville & Nashville forces under the direction of W. H. Stilwell, signal engineer, and P. P. Ash, assistant signal engineer. The major items of C. T. C. equipment were furnished by the Union Switch & Signal Company.



Section of double track with spring switches and C.T.C. signals at Hemp

Future Passenger-Car Weight Reductions

A statement of the present status, of basic conditions underlying weight reductions, and suggested further procedures for the car builders and specialty manufacturers

This forum on "Reduction in Weight of Passenger-Car Equipment and Specialties" was held under the auspices of the Railroad Division during the annual meeting of the American Society of Mechanical Engineers just concluded. The session was opened with the paper here presented, in which Mr. Kiefer "states the object." This was followed by some twenty presentations dealing with a wide range of passenger-car equipment and materials furnished by companies other than the car builders. A summary of these papers will appear in an early issue.

By PAUL W. KIEFER

Chief Engineer Motive Power and Rolling Stock, New York Central System

DURING the Railroad Division sessions at the annual meeting of the American Society of Mechanical Engineers held at New York in November, 1945, the subject of weight reduction in the various items of equipment, appliances, fittings and furnishings embodied in the modern passenger car received considerable attention. Representatives of the railroads, as well as those of the car builders, expressed, in effect, the belief that the point had then been reached where further practical weight reduction in such cars would have to be centered largely in items which, including running gear, account for two-thirds or more of the total dry weight complete.

Then, when the program for this session was formulated, it was decided that this important question should be made the subject of detailed discussion with the hope that definite progress might result through the interchange of ideas and submission by the various manufacturers and suppliers involved of detailed statements covering reductions in weight believed to be practicable now or in the future, supplemented by condensed information as to just how this might be accomplished in each instance —that is, through the use of lighter-weight materials, new or refined designs, simplification, or other means. The interested manufacturers also were to be requested to supply the weights of present constructions or equipment furnished by them and the reductions to be expected or which might consistently be anticipated in the not too distant future through further study and applied research.

It is anticipated that through the participation of the considerable number of manufacturers and suppliers here present, all of whom contribute importantly to the complete modern passenger-car unit, definite and constructive progress will be registered or initiated.

The Case for Present Weights

To begin with, a good case can be made for the present total weight of the modern passenger car, with specialty equipment, appliances, and furnishings included, and I want to emphasize that we must not run wild on the matter of total weight reduction to the extent of increasing out-of-service time for running and shop repairs, raising maintenance costs, or unduly shortening useful anticipated service life. If this were done, it probably would break us a few years hence after substantial numbers of unduly lightened cars had seen service.

Neither must we permit weight savings alone to detract from, or impair, the relatively smooth and shock-free operation which has been achieved through improvements developed during recent years. If we sacrifice these in any way, we will cause our passenger-train service to become less attractive to the traveling public. Obviously, combined efforts in this direction should be intensively continued. Stated otherwise, experience sometimes dictates that in certain instances, particularly with respect to features affecting the dynamics of train movement, the judicious use of reasonable weight additions is fully justified to obtain the required results.

Another consideration of outstanding importance relates to initial costs. With the extremely high prices now being paid for modern coaches, even when ordered in quantities, and for cars of other kinds needed to fill out modern consists, such as diners, sleepers, lounge, observation and others at proportionately higher figures, I want to underline the fact that the margin of return on investments in such equipment continues to become thinner, even with such cars making 250,000 to 300,000 miles annually in revenue trains, which is equivalent to about what must be done at present costs for economic survival. On this account, a positive joint responsibility is here present. We of the railroads, suppliers and builders must keep constantly before us the problem of the over-all economic situation and realize that initial costs must be kept under control. For the rail transportation industry to continue to live as a self-supporting enterprise, all concerned must contribute something to this end in order successfully to weather the storms ahead.

To size up the present situation in a constructive manner, it is not necessary to go back to the steel coach and other kinds of passenger cars built some 25 to 30 years ago, considerable numbers of which are still in service. Without air conditioning or other numerous modern features, such cars weigh on the order of 140,000 to 150,000 lb. each, with many sleeping cars of substantially greater weights. Rather let us set up a condensed comparison of the coach of the late 1920's with the representative streamline construction of today. A few basic figures are given in Table I.

Reductions Since Late 20's

From line 7 it is seen that the coach of 1945 (Column 3) is 6 ft. longer than the coach of the 1920's (Column 2). This modern coach also contains tight-lock couplers with swinging supports and a complement of heavy metallic connectors; air-conditioning and modern ventilating apparatus with correspondingly heavier generating equipment; much larger batteries; a number of electric control devices; streamlining, including end closures and folding steps; more extensive lighting; high-speed brakes, roller bearings and otherwise specially equipped trucks, and numerous other items. Notwithstanding these additions and the increased length, this car is about 7½ per cent lighter than the car of some two decades ago. This

This article is based on remarks with which the author opened the Forum on Weight Reduction in Passenger-Car Equipment and Specialties at the session of the Railroad Division at New York on December 5 during the annual meeting of the American Society of Mechanical Engineers.

Table I—Present Status of Passenger-Car Weight Reductions

Line No.	(1)	(2) Coaches	(3) Coaches	(4)
		Late 1920's*—Carbon-steel; riveted body	1945†—High-tensile, low-alloy steel; welded, non-fluted body	Per cent change (Col. 3 compared with Col. 2)
1	Complete car, lb.	130,900	121,000	− 7.5
2	Two four-wheel trucks, complete, ready for service; 36-in. multiple-wear rolled-steel wheels, lb.	34,000	39,500	+ 16.1
3	Body, completely equipped, lb.	96,900	81,500	− 15.9
4	Equipment and specialties, added to the body shell, lb.	40,300	50,600	+ 25.5
5	Body shell, without equipment or specialties, lb. (Line 3 − Line 4)	56,600	30,900	− 45.4
6	Body equipment and specialties, percentage of complete body (Line 4 ÷ Line 3)	41.6	62.0	+ 49.0
7	Coupled length, ft.	79	85	+ 7.6
8	Passenger seating capacity	84	56	− 33.3

* Not air conditioned.
† Air conditioned.

did not just happen, but is the result of better materials and processes, accumulated experience and careful designing throughout, including the development and installation of the large amount of additional specialty equipment for the comfort, convenience and safety of the occupants, not embodied in the older car. It might be said that the coach in Column 2 has a seating capacity of 84 against only 56 for the modern unit. This is true, but the seats of the latter are of the de luxe revolving, reclining type, and the combined toilet and smoking rooms are much more spacious and better equipped.

Also, special attention is directed to line 5 which shows that the body shell weight of the car of Column 3, without equipment or specialties, has been reduced about 45 per cent as compared with that of Column 2, although the length has been increased 7½ per cent and the inside clear width is on the order of 4 in. greater than that of the older car. This reduction in large part has resulted from the availability and adaptability of improved high-tensile materials for body construction purposes, in combination with careful research, design studies and better methods of fabrication and construction.

Further Action Suggested

Certain items added to the car body are not infrequently provided by the builder, such as tight-lock coupler supports, vestibule trap doors and steps, supply tanks, supporting structures inside and outside of the car, doors, interior partitions, built-in seats and similar furniture, and a large amount of miscellaneous hardware, in which, taken collectively, some worthwhile further weight-saving should be made, independently of the weight of the body shell, without detrimental effect.

Now for the other side of the problem. One of the difficulties faced in the analysis of this total question is the lack of detailed weight information comprehensively broken down for the other parts of the car, including running gear. The trucks complete, ready for service, should serve as a good example. By using an approved and established alloy steel for the important castings, consisting of frames, bolsters, center plates, spring planks, equalizer spring seats, filler blocks and miscellaneous items, it has been demonstrated that about 1,550 lb. per car set can be saved as compared with these parts made in Grade A cast steel and other presently used materials, such as were embodied in the trucks of the modern car, Column 3. While this represents a worthwhile reduction and amounts to about 1.28 per cent of the total car dry weight, it leaves for further consideration, exclusive of wheels and axles, such items as clasp-brake rigging, brake cylinders, shoes and keys, slack adjusters, piping and fittings, equalizers, swing hangers and connections, shock absorbers and supports, roller bearings and boxes, wheel-slip control mechanisms, and a number of other miscellaneous parts, all of which amount in weight to some 14,000 lb., or about 11.5 per cent of the total dry weight of the car.

When considering equipment and specialties other than applied to the trucks, we find from line 6 of the table that these items represent approximately 62 per cent of the weight of the fully equipped and complete body and that this total is made up of a large number of items. These may be classified broadly as coupler equipment, windows and fixtures, inside finish and furnishings, heating installations, water supply, body foundation and pneumatic brake parts, electrical equipment, insulation, and air conditioning and ventilating apparatus.

Now each of the items making up these respective classifications should be studied in detail and one of the essential needs is a careful breakdown of the weights of the respective component parts, including for each detail separation of construction materials necessary for installation.

Much progress has been made but more should be forthcoming. In addition to the procedure here outlined and what the car builders themselves may be able to accomplish in lightening the numerous items which they add to the car body, other possibilities of weight reduction which, in total, might come to a substantial figure may lie in the direction of developments now under study and experiment, such as the following: high-speed compressor for air conditioning directly connected to a specially designed driving motor; a new type battery, such as nickel-cadmium, having different internal resistance characteristics and lower ampere-hour capacity than that of the conventional lead battery now used; an inductor-alternator type generator, without commutator, brushes or collector rings, designed to produce three-phase a. c. current for conversion by means of a rectifier to d. c. at the desired voltage if it is found feasible to produce such a generator for an output of 20 kw. or higher.

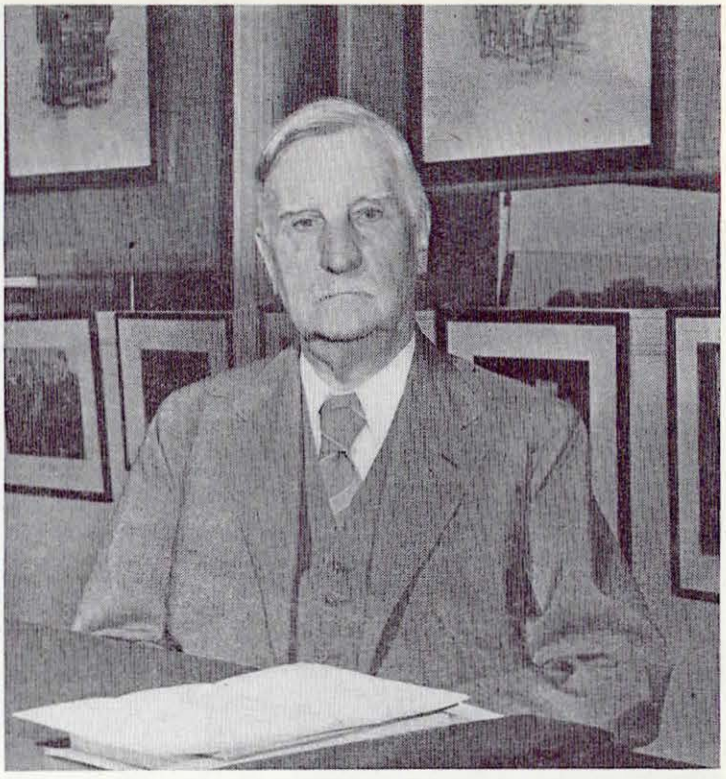
"Lighter, Better and Cheaper"

Some responsible and recognized authorities contend that certain specific additional costs per pound of weight saved can be justified and paid for in new cars, but economic developments, including those of recent months, indicate to me that a new appraisal of the situation is necessary and that to retain black ink in the passenger service accounts requires that in some manner or other, overall costs of operation must be reduced, not increased, and that we in the equipment field should at least make every effort collectively to hold our own on the formula of "lighter, better and cheaper" to which I referred during the meeting a year ago. The railroad equipment building and supply industry, taken collectively, is capable of applying the industrial know-how and utilizing the technological progress, improved tools and techniques required to hold down actual costs for the accomplishment of the desired ends.

Some part of this vitally needed economy should be derived from further passenger-car weight reduction. Shortened schedules are quite rapidly being introduced and, as speed means power, the value of having saved about 175 to 200 tons in the present modern representative passenger trains consisting of, say, 15 cars each as compared with equivalent trains made up of the designs of the 1920's is not difficult to visualize.

It is hoped and anticipated that our discussion here may, in due time, have the result of substantially widening this weight difference with corresponding benefits in the advancement of the passenger-service art of the rail industry.

Edward G. Budd Dies at 75



EDWARD GOWEN BUDD, founder and president of the Budd Company, died of a heart attack on November 30 at his home in Philadelphia, Pa. He would have been 76 years old on December 28.

Born in Smyrna, Delaware, Mr. Budd attended the public schools there. In 1887 he began his career as a machinist by serving as an apprentice, first with G. W. & S. Taylors of Smyrna and later with Bement, Miles & Co., Philadelphia machine tool builders. While with the latter organization, he took a course with the Franklin Institute, studying the latest forms of gearing. In 1895, he joined the American Pulley Company, where, as shop superintendent, he was credited with the development of the first sheet metal pulleys. He became associated with the Hale & Kilburn Co., manufacturers of railroad car seats, in 1902, where as general manager he was responsible for the introduction of pressed metal parts as substitutes for castings.

Mr. Budd went into business for himself in 1912, founding the Edward G. Budd Manufacturing Company. The first shop was located in a small rented place in Philadelphia. The shop was so small that it was necessary to install a large press in a rented canvas circus tent, which was set up on an adjoining lot.

Organized for the development of sheet metal stampings, the new concern soon began the manufacture of steel truck and passenger car bodies. Charles Nash, then president of the General Motors Corporation, was the company's first customer. By 1915, John and Horace Dodge, former engine builders in Detroit, Mich., were beginning to manufacture their new automobile and became the first quantity buyers of Mr. Budd's products. This progress made possible the employment of 600 workers and made enlarged plant facilities a necessity.

In 1916, Mr. Budd organized the Budd Wheel Corporation for the manufacture of steel wheels for automobiles. This enterprise was reorganized as the Budd Wheel Company five years later, with its own plant in Detroit.

When this country entered the first world war, the Edward G. Budd Manufacturing Company threw its experience and organization into filling government orders for steel helmets, field kitchens, army truck bodies, bombs, shells and other war material. By the time the Armistice was signed, the firm was employing approximately 4,700 workers.

To advance the popularity of the all-steel automobile body, Mr. Budd resorted to showmanship. His company perched an elephant on top of one of its steel car bodies and dared the makers of wood-framed bodies to match the performance. Wooden- and steel-bodied cars were rolled down steep hills and the owner of the wooden body was challenged to drive his car away from the foot of the cliff, as was done with the steel-bodied car.

Tests such as these were responsible for the sale of millions of steel car bodies to Ford, Chrysler and Studebaker. By 1925, a Detroit division of the company became necessary.

The company in 1930 organized a division for manufacturing stainless steel products and, after exhaustive tests and experiments, developed its own "Shotweld" system for the fabrication of stainless steel. This process opened new fields for a wider use of the metal and was followed by the manufacture in 1931 of a stainless steel airplane. The experimental plane, which was flown extensively in this country and in Europe, is now on exhibit in the open air in front of the Franklin Institute in Philadelphia.

In the early years of the depression, the company entered an entirely new manufacturing field. With the perfection of the "Shotweld" system and the experience gained in airplane construction, it decided to embark on a program of designing and building streamlined, lightweight, stainless steel railroad passenger cars and lightweight stainless steel truck trailers. This pioneering venture won important new business for the company.

The first stainless steel train put into service was the "Pioneer Zephyr," delivered to the Chicago, Burlington & Quincy in April, 1934. Between the "Pioneer Zephyr" and the last train delivered before the attack on Pearl Harbor, the company sold a total of 487 streamlined railroad passenger cars.

During the years of the second world war, Mr. Budd engaged in manufacturing war equipment for every branch of the armed services. The original manufacturer of the "bazooka" projectile and the rifle grenade, the company's plants made millions of fragmentation bombs and shells and developed many uses for stainless steel.

At the end of the war, the company acquired the Red Lion plant in Bustleton, Pa., where all its railway passenger car manufacturing activities are centered. The assembly lines there can handle 80 cars at one time.

On June 11, 1946, the stockholders of the Budd Wheel Company and the Edward G. Budd Manufacturing Company voted to merge the companies into a single corporate entity, the Budd Company. (See the *Railway Age* for June 15, pages 1198 and 1199).

Mr. Budd, in 1944, received the medal of the American Society of Mechanical Engineers, the society's highest award, for his "outstanding engineering achievements."

Beven Succeeds Bond on E. J. & E.

Thomas D. Beven

THOMAS D. BEVEN, vice-president of the Elgin, Joliet & Eastern, was elected president of the road, effective December 1, at a meeting of the board of directors held on November 26, succeeding Thomas E. Bond, who will retire after more than 38 years' continuous service. The new president brings to the E. J. & E. 35 years of intensive railroad experience on both terminal and road-haul lines, during which he worked up through most of the positions which the operating department can offer.

Mr. Bond has devoted his 47 years of railroading almost exclusively to traffic work, with particular emphasis on rates, in which field he earned a national reputation, as his career shows. This high expertness has been particularly valuable during his service with the E. J. & E. because, unlike most belt and terminal carriers, the road gains its revenues principally by the division of line-haul rates, rather than switching charges, and must pay even more than ordinary attention to rate-making and rate-sharing.

Advertised as the "Chicago Outer Belt Line," the E. J. & E. comprises 392 route-miles of line, extending from Waukegan, Ill., on Lake Michigan, north of Chicago, around the periphery of the Greater Chicago area, through Joliet, to Gary, Ind., and Porter, with branches serving Aurora, Ill., Goose Lake, Rockdale, and South Chicago. The line of the E. J. & E. intersects, and maintains interchange connections with, every trunk line entering the city of Chicago, and consequently, the road puts in a strong bid for overhead traffic in competition with other belt roads. At the same time it originates and terminates a large volume of traffic on its own lines, especially to and from the mills, and the ore and coal loading and storage points and other facilities of the United States Steel Corporation and its subsidiaries, by which the road is wholly owned. Finally, the line performs heavy-duty intra-plant services for a number of the facilities along its lines, including the handling of hot furnace products and slag.

Among the large industries on the line of the E. J. & E. are the Carnegie-Illinois Steel Corporation at Gary and South Chicago; the American Steel & Wire Co. at Joliet and Waukegan; the Youngstown Sheet & Tube Co. at South Chicago and Indiana Harbor; the Standard Oil Company at Whiting, Ind. (where the E. J. & E. performs switching for all roads); Johns-Manville at Waukegan, and the Ruberoid Company at Joliet.

The road owns and operates 208 locomotives, of which 77 are Diesel switchers, and one is a 2,000-hp. Diesel-electric transfer locomotive of an entirely new design (see *Railway Age* for August 31, page 371). With this power roster the road operates about 80 road freight assignments daily, together with more numerous switch engine assignments, including approximately 65 at South Chicago, 100 at Gary, 50 at Kirk yard (Gary), 50 at Joliet and 14 at Whiting. At current writing the E. J. & E. hauls about 4,000 loaded cars a day, of which about 700 are overhead.

Progressive Classification

Operation of the line presents unusual problems of classification and yard arrangement and location. For a belt line, the road is extraordinarily long. A freight train from Waukegan to Porter would cover about 130 miles. Since the E. J. & E. runs about the perimeter of the Chicago district, the trunk lines which fan out from the city's center, like the spokes of a wheel, are separated by considerable distances at the point where they meet the "Outer Belt." Hence it is undesirable for the latter to concentrate its classification operations in one or two central yards. As a result, classification is carried out all along the line to the end that backhauling of cars is eliminated. By such progressive recasting of trains, the transfer of cars between the belt line and its connections is accomplished with a minimum of delay.

Thomas E. Bond

While the tonnage originating on line declined steadily from 57 per cent of total tonnage in 1940 to 47 per cent in 1944, total tons handled increased from 31 millions in 1940 to 46 million in 1944.

During the war years, the E. J. & E. completed the installation of new automatic block signals on its main line and this year placed in service a new classification yard at Whiting.

Thomas D. Beven was born at New Orleans, La., on December 23, 1898, and entered railway service on January 8, 1912, as a messenger caller and clerk on the Illinois Central. He resigned on February 5, 1914, to go with the Houston Belt & Terminal at Houston, Tex., but returned to the Illinois Central on September 15, 1916. On May 15, 1917, he joined the U. S. Marines and served with them until May 20, 1920, when he was mustered out as a first lieutenant.

After the war, Mr. Beven re-entered the service of the Illinois Central as a clerk and switchman at McComb, Miss., and was promoted to night yardmaster at Jackson, Miss., in 1924. He was promoted to general yardmaster at Hattiesburg, Miss., in 1926, and to trainmaster on the Memphis division on July 15, 1929. On June 1, 1935, he was appointed trainmaster at Paducah, Ky., and in May, 1938, he was advanced to superintendent of the East St. Louis terminal. In December of that year, Mr. Beven left the Illinois Central to go with the E. J. & E. as general manager, with headquarters at Joliet. Effective May 1, 1941, Mr. Beven was elected vice-president of the road, while con-

tinuing to perform the duties of general manager.

Thomas E. Bond was born in Toledo, Ohio, on November 2, 1876, and entered railroad service in 1900, at the age of 24, as a clerk in the traffic department of the Denver & Rio Grande (now of the Denver & Rio Grande Western). In 1905 he entered the industrial traffic field as a rate clerk with the Colorado Fuel & Iron Co., at Denver, Colo. Three years later he returned to railroad service as a clerk in the traffic department of the E. J. & E. In 1914 Mr. Bond advanced to chief of the tariff bureau of this road.

In 1918 he was furloughed from railroad service to serve as assistant western traffic manager of the United States Food Administration. In 1919, upon the close of the war, he returned to railroad service as a member of the Western Freight Traffic Committee of the United States Railroad Administration. In 1920, when the railroads were released from government control, Mr. Bond returned to the E. J. & E. as assistant traffic manager. On May 1, 1923, he was promoted to traffic manager of the line. On March 7, 1932, he was elected vice-president, and on May 1, 1941, he was elected its president, succeeding Scott M. Rogers.

Mr. Bond is a member of the Executives, Mid-Day and Union League clubs of Chicago, among others, and served as president of the latter in 1943 and 1944.

Fork-Type Truck Has 18-Foot Reach

Identified as model F. 24 T., a new fork-type power industrial truck with an elevating reach of 18 ft. has been announced by the Elwell-Parker Electric Co., Cleveland 14, Ohio. With several features of design and construction said to make it especially useful for high-tiering materials and merchandise, this fork truck has adequate speed and flexibility for maneuvering, and lifting and lowering loads.

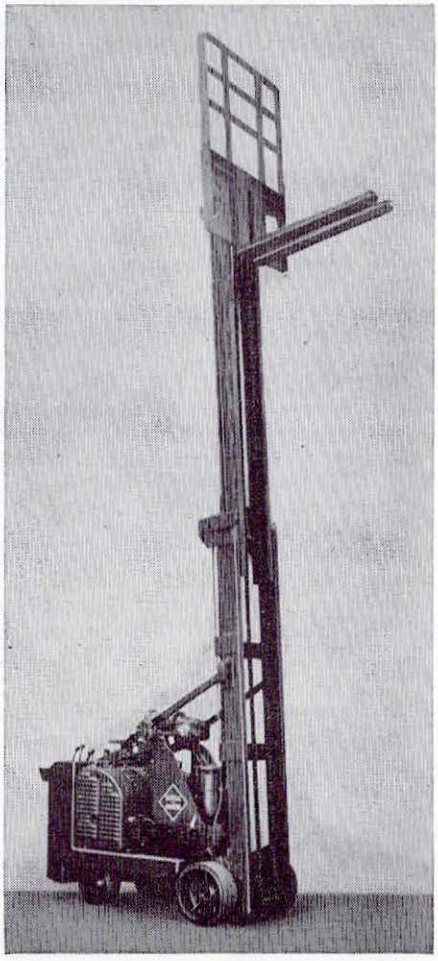
The model F. 24 T. picks up loads on its fork or on pallets and has a rated capacity of 4,000 lb. for lifting to a height of 11 ft., and 3,000 lb. to 18 ft. Electrically driven, the fork truck has three separate motors; one for traveling, one for operating the elevating mechanism, and the third for tilting the upright columns.

The tilting limit of the truck is 15 deg. backward and 5 deg. forward from a vertical position while its lifting speed with capacity load approximates 13 ft. per min., its lowering speed 20 ft. per min. and its traveling speed 5 mi. per hr.

Independent of the uprights and fork, the truck body is 7 ft. 8 in. long, while its overall width is 3 ft. 2 in., permitting the unit to be maneuvered in narrow aisles. Operating controls are arranged on the panel at a convenient height and the power switch is actuated by a foot pedal. This new truck is end-controlled, a feature said to afford the operator maximum safety, for all power is automatically shut off when he steps from its platform.

Pivoted at the forward base of the truck body is a pair of columns which form a primary frame 11 ft. high. Another pair of columns of similar length comprise the telescoping frame in which the adjustable fork travels. This secondary frame operates on ball-bearing rollers in alloy steel tracks and is part of the primary frame.

The truck is mounted on four solid rubber tire wheels and is driven by means of the forward pair, size 7 in. by 20 in. The rear wheels through which steering is accomplished are 5 in. by 15 in.



The Model F 24 T fork truck is designed to utilize all overhead storage space

Automatic Sky Lift

A new telescopic, tilting, hydraulic electric lift truck, known as the Sky Lift, to be made in 2,000, 3,000 and 4,000 lb. load capacity, has been announced by the Automatic Transportation Company, 149 West 87th street, Chicago.

Said to include engineering advancements never before combined in a single unit, the Sky Lift has a standard collapsed height of 83 in. and will stack to 130 in. from floor to top face of forks. It is capable of stacking to ceiling heights in low clearance buildings or box cars, since independent rams raise each section of the telescopic lift, permitting forks and upright to move separately, the forks rising to the top of the upright before the latter begins to extend. The over-all height of the truck remains 83 in. until the load goes above that height. Special flow control valves are said to enable lifting, lowering or tilting under any condition of load or unload.

A short turning radius, combined with light-weight construction, adapts the Sky Lift to loading in small areas and makes it desirable for use in storehouses or for handling express shipments

The Sky Lift features sit-down automotive type controls. Brake pedal, steering wheel and foot accelerator are all identical with those of an automobile, while its pneumatic controller, called the "Newmatic," provides automatic shift through four horizontal speeds as the accelerator is depressed and permits the truck to be started only in low speed, an important safety factor.

Other features include silicon varnish insulation of the electrical system, a newly developed traction brake of the disc, air-cooled fin type, and complete "dead-man" control, which automatically shuts off all current when the operator's foot is off the accelerator.

GENERAL NEWS

10 Months Net Income Totaled $155,000,000

Net railway operating income for the same period was $450,730,009

Class I railroads in the first ten months of this year had an estimated net income, after interest and rentals, of $155,000,000, as compared with $473,196,438 in the corresponding period of 1945, according to the Bureau of Railway Economics of the Association of American Railroads. The ten-months net railway operating income, before interest and rentals, was $450,730,009, compared with $830,561,052 in the same period last year.

October's estimated results showed a net income of $57,000,000, compared with $20,224,255 in October, 1945, while the net railway operating income for that month was $85,118,939, compared with October, 1945's, $52,414,331. In the 12 months ended with October, the rate of return averaged 1.7 per cent, as compared with 3.57 per cent for the 12 months ended with October 31, 1945.

The A. A. R. statement noted that the taxes and net earnings for October and for the first 10 months of 1946 are after taking credit in the accounts for carry-back tax credits, adding that such credits totaled $13,000,000 for October and $85,000,000 for this year's first 10 months. It said that both the net railway operating income and the net income for October and the 10 months would have been correspondingly reduced had the carry-back credits not been made.

Gross in the ten months totaled $6,331,911,885, compared with $7,623,746,789 in the same period of 1945, a decrease of 16.9 per cent. Operating expenses amounted to $5,271,642,098, compared with $5,538,109,054, a decrease of 4.8 per cent.

Forty-nine Class I roads failed to earn interest and rentals in the ten months, of which 22 were in the Eastern district, 10 in the Southern region and 17 in the Western district.

Class I roads in the Eastern district in the ten months had an estimated net income of $9,000,000, compared with a net income of $185,891,656 in the same period of 1945. For October, their estimated net income was $19,000,000, compared with a deficit of $4,296,497 in October, 1945. The ten-months net railway operating income in the Eastern district was $145,590,564, compared with $345,175,194 in the same period of 1945; for October, it was $32,994,248, compared with $7,297,131 in October, 1945.

Gross in the Eastern district in the ten months totaled $2,822,908,251, a decrease of 11.9 per cent compared with the same period of 1945, while operating expenses totaled $2,421,124,758, a decrease of 2.5 per cent.

In the South and West—Class I roads in the Southern region in the ten months had an estimated net income of $15,000,000, compared with a net income of $66,224,781 in the same period of 1945. For October, they had an estimated net income of $6,000,000, compared with a net income of $4,918,367 in October, 1945. Those same roads in the ten months had a net railway operating income of $62,113,556, compared with $118,987,659 in the same period of 1945. Their October net railway operating income amounted to $9,652,339, compared with $9,894,242 in October, 1945.

Gross in the Southern region in the ten months totaled $878,175,743, a decrease of 16.6 per cent compared with the same period in 1945, while operating expenses totaled $732,936,488, an increase of 1.9 per cent.

Class I roads in the Western district in the ten months had an estimated net income of $131,000,000, compared with $221,080,001 in the same period of 1945. For October, they had an estimated net income of $32,000,000, compared with a net income of $19,602,385 in October, 1945. Those same roads in the ten months had a net railway operating income of $243,025,889, compared with $366,398,199 in the same period of 1945. Their October net railway operating income amounted to $42,472,352, compared with $35,222,958 in October, 1945.

Gross in the Western district in the ten months totaled $2,630,827,894, a decrease of 21.9 per cent compared with the same period of 1945, while operating expenses totaled $2,117,580,852, a decrease of 9.3 per cent.

CLASS I RAILROADS—UNITED STATES

	1946	1945
Month of October		
Total operating revenues	$ 709,938,026	$ 696,991,353
Total operating expenses	558,424,255	626,664,312
Operating ratio—per cent	78.66	89.91
Taxes	53,287,217	4,838,968
Net railway operating income (Earnings before charges)	85,118,939	52,414,331
Net income, after charges (estimated)	57,000,000	20,224,255
Ten Months Ended October 31, 1946		
Total operating revenues	$6,331,911,885	$7,623,746,789
Total operating expenses	5,271,642,098	5,538,109,054
Operating ratio—per cent	83.26	72.64
Taxes	483,458,905	1,105,851,790
Net railway operating income (Earnings before charges)	450,730,009	830,561,052
Net income, after charges (estimated)	155,000,000	473,196,438

Four Lines Oppose Santa Fe's Plans

M.P., Frisco, Cotton Belt and Rock Island see losses if rival enters St. Louis

The Atchison, Topeka & Santa Fe, on November 20, completed its presentation of direct evidence in the St. Louis (Mo.) hearing before the Interstate Commerce Commission on its application to extend its line from Kansas City, Mo., to St. Louis by purchase, jointly with the Chicago, Burlington & Quincy, of the Alton's line from Kansas City to Mexico, Mo., and by trackage rights from that point to St. Louis. As part of the same plan the Burlington seeks authority to become a joint owner of that portion of the Alton's line, thereby shortening the Burlington's St. Louis-Kansas City mileage considerably, and also to improve its Kansas City-Chicago service by operation over portions of the lines of the Santa Fe and the Wabash in northern Missouri. (*Railway Age*, November 23, page 885.)

Support from St. Louis—The principal Santa Fe witnesses in the final two days of that line's presentation were George C. Smith, president of the St. Louis Chamber of Commerce, who asserted that entry of the Santa Fe into St. Louis will create additional railway business for movement via St. Louis, rather than merely divide that which already routes through the city, and William E. Rosenbaum, traffic consultant, who testified that the Santa Fe's entry to the St. Louis gateway would result in the diversion of a substantial amount of the transcontinental traffic now moving via Chicago to routes via St. Louis.

Presentation of the views of those opposing the Santa Fe and Burlington plans began on November 25, with testimony by Paul J. Neff, president and chief executive officer of the Missouri Pacific, who asserted that his road faced a potential traffic loss of over $15 million annually if the applications are granted. Referring to previous testimony of Ralph Budd, president of the Burlington, and Fred G. Gurley, president of the Santa Fe, outlining plans of the two roads for improvements, Mr. Neff told the commission that M. P., for more than 20 years, has kept up a continuous program for improvement of its St. Louis-Kansas City line, and, since 1918, had spent more than $49 million for improvements on this route. He described the line and asserted: "We have already done all of the things which Mr. Budd and Mr. Gurley testified were necessary to have a railroad par excellence."

Mr. Neff termed the proposed extension

of the Santa Fe to St. Louis, and the joint operation by it and the Burlington of these lines, a proposed transition from a "healthy competitive transportation situation between competing lines to one of wasteful transportation between St. Louis and Kansas City." He asserted that "there is no area in the Southwest with more adequate transportation facilities, service and unused capacity," and declared that "there is no service which can be offered by either the Santa Fe or the Burlington between the two cities which is not now available" or which could not easily be made available by existing lines.

Two Roads Not Heard From—The Santa Fe's proposal to enter St. Louis was described as "grasping" by Mr. Neff, who said that it would, if granted, cause irreparable injury to the M. P., the St. Louis-San Francisco, the St. Louis Southwestern, and the Chicago, Rock Island & Pacific, the four lines which have filed formal protests against the Santa Fe-Burlington application, and also added that similar injury would come to the Missouri-Kansas-Texas and the Wabash, lines which have not entered formal objections to the proposal. He also told the commission that the M. P. had offered, and still offers, to join the Santa Fe in through passenger service between St. Louis and the Pacific coast on a basis comparable to that contemplated by the Santa Fe.

Mr. Neff denied that the movement of freight through Kansas City would be expedited by the proposal, pointing out that the Santa Fe's and the Burlington's proposed joint operation of three freight trains over the line daily would involve the same movement of cars from one Kansas City train yard to another, the same inspection, and the same clerical and miscellaneous operations as are now performed, with the sole exception of the preparation of interchange reports, which would be eliminated.

Returning to passenger service, Mr. Neff said that the new "Sunshine Eagles," now being built for service between St. Louis and El Paso, Tex., via Texarkana and the Texas & Pacific, would enable the M. P. to offer a St. Louis-Pacific coast passenger service on a basis comparable to that proposed by the Santa Fe, and that the Southern Pacific is being offered through equipment for handling west of El Paso in connection with this train. Likewise, he said, the M. P. is offering the Denver & Rio Grande Western and Western Pacific through equipment at Pueblo, Colo., to enable the operation of a St. Louis-San Francisco passenger train comparable to the "California Zephyr" now being built for Chicago-San Francisco service via the Burlington-D. & R. G. W.-W. P. route.

Offers to Share Joint Service—Wherever it seems desirable in the interests of better service to the traveling public, the M. P. has no hesitancy about "short-hauling" itself, Mr. Neff declared, pointing to the St. Louis-Los Angeles sleeper it operates via Kansas City and the Rock Island in competition with another car it operates via Texarkana and the T. & P. At present the M. P. and the Rock Island are making arrangements to supplement the present "Golden State Limited" streamlined sleeping-car service with additional through service between St. Louis and Los Angeles in a new 39¾-hr. streamliner now being built for the Chicago-Los Angeles run. According to Mr. Neff, the Santa Fe's withdrawal from through-car operation in St. Louis was of that road's own making, and he declared that the M. P. was ready to resume the through St. Louis-Los Angeles sleeper service whenever the Santa Fe desired.

F. W. Green, chief operating officer of the St. Louis Southwestern, estimated the cost to the Cotton Belt of granting the Santa Fe application at about $8 million annually, and said it could amount to as many as 56,000 cars of freight a year, and to as much as 20 per cent of the Cotton Belt's revenue. Colonel Green termed the Santa Fe claim of ending long interchange delays at Kansas City "palpably absurb" and said that if such a remedy for terminal delays were universally applied it would lead to a "unified, national railroad system."

J. Russel Coulter, chief traffic officer of the Frisco, estimated that that line stood to lose $6.5 million annually if the application is granted, and declared the loss could be made good only by abandoning branch lines now being supported by the revenues of the more profitable main lines. Mr. Coulter said that the Santa Fe, even if given a St. Louis line, would still not be in a position to equal the running times of the new Frisco streamliners to be placed in service during 1947 between St. Louis and Oklahoma and Texas points.

Abandonments Hinted—John D. Farrington, chief executive officer of the Rock Island, asserted that entry of the Santa Fe into St. Louis would so dislocate present traffic as to make continued profitable operation of the Rick Island's St. Louis-Kansas City line uncertain, and delcared that it might force the road to seek a new St. Louis entrance through a trackage agreement enabling abandonment of "all or a substantial portion of the existing line." The testimony of Messrs. Neff, Green, Coulter and Farrington was supported in subsequent days' sessions by evidence offered by various traffic officers of each of the protesting lines, and by shippers who said that Santa Fe competition for St. Louis traffic would impair rather than enhance the quality of the railroad service they now receive.

Two state bodies have also joined the four roads protesting the Santa Fe application. The Arkansas Public Service Commission, through T. E. Wood, its director of tariffs and transportation, charged that the Santa Fe extension would divert traffic from Arkansas railroads and reduce the state's income through loss of taxes. He added that it would probably make certain the abandonment of the 359-mile Missouri & Arkansas, which, he said, largely depends for its traffic on freight received from the Santa Fe at Joplin, Mo., and routed to connections at Helena, Ark.

On November 27, William C. Wines, assistant attorney general of Illinois, intervened in the case in opposition to the Santa Fe's plans, asserting that the Santa Fe's entry into St. Louis threatened the continued existence of the lines of the Alton between Mexico and Roodhouse, Ill., and would seriously threaten continued rail service to more than 40 Illinois towns. In addition, he held that diversion of traffic from the M. P. would hurt residents along the 119-mi. main line of the Illinois division of the M. P. from East St. Louis, Ill., to Thebes.

Say R. R. Young May Buy into New York Central

That interests associated with Robert R. Young, chairman of the Alleghany Corporation and the Chesapeake & Ohio, are "studying" the New York Central with an idea of making a substantial investment in that company's securities was indicated in a report of an interview with Mr. Young appearing in the November 29 issue of the Investor's Reader, published by Merrill Lynch, Pierce, Fenner & Beane, dealers in securities at 70 Pine street, New York. The article went on to say that Alleghany has some $11 million available for investment, following a recent sale of 100,000 shares of Chesapeake & Ohio common and the receipt of payments on Pittston Company securities.

Worcester Pullman-Standard Plant Again Producing

Construction of railway passenger equipment at the Worcester (Mass.) plant of the Pullman-Standard Car Manufacturing Company, halted since the beginning of World War II, began on November 29, when work commenced on a 24-car order for the Boston & Maine and Maine Central. The order consists of 16 coach-lounge cars, 4 coach-lounge-baggage cars and 4 restaurant-lounge cars, described as the first all-welded, high-strength, low-alloy steel passenger equipment to be delivered to a New England railroad. Exterior finish will be fluted stainless steel. Delivery is scheduled for early 1947.

The company's Worcester plant since V-J day has been used primarily for the construction of street cars and trolley coaches for city transit lines. During this period a program for its expansion has added modern facilities and additional shop space for the construction of passenger cars.

Passenger Problems Studied at St. Louis Night School

A night school class for the study of passenger transportation matters, believed to be the first of its kind ever attempted, has been inaugurated for railroad employees at the Soldan high school, St. Louis, Mo., under the auspices of the St. Louis Board of Education.

The course, sponsored by the Southwestern Passenger Association and the traffic and passenger clubs of St. Louis, will include the study of railroad geography, Interstate Commerce Commission rules governing the construction of passenger tariff publications, method of figuring fares, the compilation of tariffs, and related subjects. It is believed that the class will furnish ticket sellers, passenger representatives and rate quotation and refund clerks with the training necessary to make them proficient in their fields.

The course is conducted by Paul Sullivan, chief clerk, passenger department, of

the Gulf, Mobile & Ohio—Alton. Approximately 30 passenger department employees attended the first session of the school, which is held two nights each week. New students may enroll at any time at a cost of $3 per semester. The present course, it was announced, will extend through at least two semesters.

Vermont Railroad Strike Ended

Strikes of operating employees of the Barre & Chelsea and the St. Johnsbury & Lake Champlain, which had tied up those Vermont railroads for 17 days, were terminated recently as a result of negotiations between the parties fostered by Governor Proctor of that state. The two railroads are among those that have objected to the application to them of the general wage increases of 18½ cents per hour awarded employees of the larger railroads last spring.

The terms of the agreement ending the strike include immediate (but not retroactive) payment of the 18½ cents per hour increase and an understanding that both parties will abide by decisions of a "fact finding" board considering the protests of various short lines against the unions' insistence that they be required to make the same wage rate adjustments as the larger roads.

R. I.—S. P. Announce New Streamlined Trains

Two new, 11-car, streamlined, stainless-steel trains will be placed in service by the Chicago, Rock Island & Pacific and the Southern Pacific between Chicago and Los Angeles, Cal., early in 1947, according to a recent announcement of these lines. The new trains will operate tri-weekly on a schedule of 39¾ hr. in each direction. Equipment of each train will consist of a baggage-dormitory car; three "day-nite" coaches; a coffee-shop-lounge car; a 36-seat dining car; a two-drawing room, four-bedroom, four-compartment sleeper; a 22-roomette sleeper; two 12-bedroom sleepers; and a buffet-lounge-observation car, including a drawing room, two double bedrooms and a barber-valet shop. Wire-recording devices will provide music in the coffee shop-lounge car, the diner, and the observation car.

These two roads also have new equipment on order to augment the present streamlined "Golden State Limited." Included are new reclining-seat coaches, dining cars, coffee-shop-lounge cars, club cars and observation cars.

Another new train scheduled to begin service during this period will operate over the Rock Island between Chicago and Omaha, Neb., on a fast daylight schedule. Equipment of the new trains, which will leave each terminal in the morning, will consist of a baggage-dinette car, a 76-seat chair car, two 68-seat chair cars and a parlor-observation-buffet car between Chicago and Omaha; and two additional 68-seat chair cars and a parlor car to operate between Rock Island, Ill., and Chicago.

In the article on new passenger cars on order, published in the *Railway Age* of November 16, the table on page 800 inadvertently showed the Rock Island as having only nine sleeping cars on order. This road has on order 57 passenger cars of all types, all from the Pullman-Standard Car Manufacturing Company, as follows:

5 eight-duplex-roomette, six-roomette, four-double bedroom
3 bedroom-lounge-observation
2 12-bedroom
1 two-drawing room, four-bedroom, four-compartment
1 22-roomette
1 diner-lounge-observation
2 parlor-buffet-observation
1 coach-buffet-parlor-observation
1 parlor
4 dining
3 coffee-shop-lounge
11 night coaches
16 day coaches
1 baggage-dormitory
3 70-ft. baggage-mail
2 80-ft. baggage

Shippers Board Meetings

The Southeast Shippers Advisory Board will hold its 77th meeting at the Buena Vista hotel, Biloxi, Miss., on December 12. C. R. Megee, vice-chairman of the Car Service division, Association of American Railroads, will discuss the national transportation situation, and T. M. Healy, Atlanta (Ga.) district manager of the division, will review railroad performance in the Southeast. J. O. Emmerich, editor and publisher of the McComb (Miss.) Enterprise, will address the luncheon meeting, speaking on the natural resources and industrial development of Mississippi.

The Trans-Missouri-Kansas Shippers Board will hold its 25th annual, and 75th regular, meeting on December 10, at the Continental hotel, Kansas City, Mo. John S. Burchmore, counsel of National Industrial Traffic League, will speak on "Fostering Transportation" at the board's luncheon, to be held in conjunction with the Traffic Club of Kansas City.

A meeting of the Pacific Coast Transportation Advisory Board will be held at the Palace hotel, San Francisco, on December 11 and 12. Meetings are to be held by various committees of the organization. Carl R. Gray, Jr., vice-president of the Chicago & North Western, will be the principal speaker.

New "Empire Builders" to Begin Service Early in 1947

Five new, 12-car, streamlined "Empire Builder" trains will be inaugurated shortly after the first of the year by the Great Northern and Chicago, Burlington & Quincy between Chicago and Pacific Northwest cities, reducing by 13½ hr. the present schedules, F. J. Gavin, president of the Great Northern, announced this week.

Costing $7,000,000, the fleet of new trains will make the 2,211-mile run from Chicago to Seattle, Wash., in 45 hours, Mr. Gavin said. The "Empire Builder," accommodating 307 passengers, will depart from Chicago's Union Station at 1 p.m. daily.

The streamliners, constructed by the Pullman-Standard Manufacturing Company, include four train-sets purchased by the Great Northern and one by the Burlington. Each train will consist of a mail-baggage car, a 60-seat coach, three 48-seat coaches, a coffee shop car, diner, four sleeping cars and an observation-lounge.

A new-style leg rest for coach passengers, which folds into the seat ahead, providing a comfortable couch, will be a feature of the new trains, Mr. Gavin said. All coach seats will be the reclining type.

Two of the sleeping cars on each train will consist of eight duplex roomettes, four double bedrooms and four open sections each. The remaining two sleepers will have 16 duplex roomettes and four double bedrooms each. The observation-lounge car will have a drawing room and two double bedrooms. Each train will be powered by a two-unit, 4,000-hp. Diesel locomotive constructed by the Electro-Motive Division of General Motors Corporation.

Standards Association Officers

Frederick R. Lack, vice-president of the Western Electric Company, will be president of the American Standards Association for the ensuing year, succeeding Henry B. Bryans, executive vice-president of the Philadelphia Electric Company. Mr. Lack formerly was vice-president of the association, and that post will be filled in 1947 by George H. Taber, Jr., executive vice-president of the Sinclair Refining Company.

B. & A. Rebuilds Boston Pier

The Boston & Albany on December 2 opened its reconstructed Pier 5 at East Boston, Mass., the first step in its program for the post-war improvement of the New York Central System's marine facilities in that port. The open pier with its two electric gantry cranes is equipped to handle cargo directly between ships and freight cars, barges or trucks. It has a capacity of 16 cars, and is connected with the 400-car Grand Junction Terminal yard.

Grand Trunk Western Tests Electro-Motive Diesels

A two-week test of the performance of Diesel-electric road locomotives in the handling of Grand Trunk Western freight trains was begun on December 2, when the road, in cooperation with the Electro-Motive Division of General Motors Corporation, began operating a three-unit 4,500-hp. type F-3 locomotive between Chicago and Port Huron, Mich. The test locomotive is geared for a maximum speed of 65 m.p.h., and is equipped with dynamic brakes. It is assigned to handle in that territory Train No. 490, the Grand Trunk's principal Chicago-Montreal (Que.) freight.

October Truck Traffic

Motor carriers reporting to the American Trucking Association, Inc., transported in October 2,231,671 tons of freight, an increase of 16.9 per cent over the 1,908,227 tons transported in September and an increase of 14 per cent above the October, 1945, total of 1,957,514 tons. The A. T. A. attributed the increase to the motor carriers' recovery from the "temporary slump in September caused by strikes." The A. T. A. index figure, based on the 1938-40 average monthly tonnage of the reporting carriers, was 204 for October.

The foregoing figures, according to the A. T. A. statement, are based on comparable returns from 199 carriers in 39 states. Carriers in the Eastern district reported tonnage increases of 18.8 per cent over Sep-

tember and 14.6 per cent over October, 1945; carriers in the Southern region reported increases of 16.4 per cent and 8.0, respectively, while Western district carriers reported increases of 13.2 per cent and 14.7 per cent, respectively.

Freight Car Loadings

Loadings of revenue freight for the week ended November 30 totalled 660,911 cars, the Association of American Railroads announced on December 5. This was a decrease below the previous week of 145,672 cars, or 18.1 per cent, due both to the coal strike and the Thanksgiving holiday, a decrease of 142,863 cars, or 17.8 per cent, below the corresponding week last year, and a decrease of 146,925 cars, or 18.2 per cent, below the comparable week in 1944.

Loadings of revenue freight for the week ended November 23 totaled 806,583 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, November 23

District	1946	1945	1944
Eastern	165,020	134,660	144,945
Allegheny	174,334	154,792	168,469
Pocahontas	32,503	46,679	52,848
Southern	123,550	113,828	118,789
Northwestern ..	113,850	86,950	83,114
Central Western	132,878	119,221	128,212
Southwestern ..	64,448	60,426	71,961
Total Western Districts	311,176	266,597	283,287
Total All Roads	806,583	716,556	768,338
Commodities:			
Grain and grain products	50,718	50,772	45,578
Livestock	23,932	21,393	21,095
Coal	97,338	151,264	161,935
Coke	12,567	12,677	13,381
Forest products	42,382	27,867	37,678
Ore	41,020	21,853	18,871
Merchandise l.c.l.	131,421	106,208	98,511
Miscellaneous ..	407,213	324,522	371,289
November 23 ..	806,583	716,556	768,338
November 16 ..	917,124	808,534	863,992
November 9 ..	913,545	838,218	839,504
November 2 ..	922,312	851,962	893,069
October 26 ..	542,257	854,779	916,425
Cumulative total, 47 weeks	37,658,275	38,372,554	39,709,213

In Canada.—Car loadings for the week ended November 23 totalled 78,711 cars as compared with 79,772 cars for the previous week, and 72,644 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
November 23, 1946	78,711	37,141
November 24, 1945	72,644	32,526
Cumulative Totals for Canada:		
November 23, 1946	3,329,010	1,622,279
November 24, 1945	3,291,538	1,643,994

Violence Flares Anew in T. P. & W. Strike

Violence again broke out in the long strike of men in train and engine service on the Toledo, Peoria & Western, when a westward freight train was derailed near El Paso, Ill., at 9:22 a.m. on November 26. Although the engine and several cars overturned and left the embankment, there were no fatalities or serious injuries.

According to a statement issued by the railroad, the derailment occurred at the first rail joint in advance of a small bridge, and was caused by the removal of two angle bars from the south rail of the track, which was the outer rail of a curve to the left. Spikes had been removed from nine ties west of the joint from which the angle bars had been removed, and one of the angle bars was wedged between the ends of the adjoining rails, forcing the rail-end facing the oncoming locomotive about 7 in. inward and leaving a 4-in. flangeway to deflect the locomotive wheels from the track. The derailment is being investigated by the proper authorities.

The derailment followed by six days an order of the United States circuit court of appeals in Chicago directing the federal district court in Peoria to order the road to restore service and directing that court to enjoin all parties from interfering with the operation of the line. As of December 3 the district court had not issued such orders.

The employees of the railway have been on strike since October 1, 1945, when the road was returned to its owners by the federal government, which had taken it over on March 22, 1942, as a result of the dispute. From October 1, 1945, until February 6, 1946, attempts of the road to operate freight trains were accompanied by acts of violence which culminated in the death of two pickets and the injury of three others on the latter date. Armed guards employed by the road were charged with manslaughter as a result of these deaths, but were acquitted on May 24.

Regular train operation on the Eastern division (East Peoria, Ill., to Effner, Ind.) was restored on June 2, with daily except Sunday service, and has been continued since, although no agreement has been reached between the unions and the management. Later, the segment between Peoria and East Peoria was also placed in operation, but there have been no recent operations west of Peoria. According to the management, regular operation over the entire line will be restored as soon as possible.

Brake Shoe Emergency Caused by Material Shortages

Railroad brake shoe stocks held by the railroads and the brake shoe manufacturers are less than half of the normal supply, according to spokesmen for the American Brake Shoe Company. Most railroad stocks of brake shoes consist of one month's supply or less, they explained, and the manufacturers were said to face the worst emergency in their history because of foundry supply shortages of coke, scrap and pig iron. This shortage, they added, is worse than at the peak of the war production period.

The demand for brake shoes is 50 per cent higher than normal and the output cannot meet the requirements until raw material deficiencies are made up, it was explained. The cause of the present trouble was described as the attempt by the country to replace within one year the durable goods destroyed by wear, obsolescence or breakage during the past five years. Shipments of scrap to Japan before the war were said to have partially depleted the country's normal scrap reserves, while the general scrap drive during the war dried up nearly all sources of scrap.

American Brake Shoe officials expressed themselves as hopeful that, because of the recent price rise in the scrap market, more will be collected by small country dealers and farmers. Efforts of these collectors, normally a source of a large amount of scrap, declined under price ceilings established by the Office of Price Administration.

M. N. Trainer, president of the company's brake shoe and castings division, was quoted as saying the company would welcome two types of scrap offers from any source. No. 1 cast scrap and stove plate, he said, are needed as well as reasonable quantities of steel scrap in coupler sizes. Because of the emergency, Mr. Trainer added that the company has had to ration and allocate brake shoes arbitrarily for the first time.

Communications Section—A Correction

In the report of the annual meeting of the Communications section, Association of American Railroads, on page 919 of the November 30 *Railway Age*, it was stated that W. D. Neil, general manager communications of the Canadian National, presided as vice-chairman. Mr. Neil is general manager communications of the Canadian Pacific. The initials of Mr. Neil also were given incorrectly in the caption under the portraits on that page.

European Conference Plans Improved Train Service

The European Conference of Timetables and Through Services for 1947-48 was held at Montreux, October 10 through 19, the first meeting of its kind since October, 1938. All European railways concerned in international passenger services were invited to participate in the formulation of plans for more efficient and faster continental train service. Of the 24 countries involved only four were not represented.

Among the important decisions made are the following, most of which are expected to go into operation May 4, 1947: An agreement that "summer time" dates operative in Great Britain be adopted, thus sparing the traveling public inconvenience during the spring when clocks of the various countries do not conform; a reduction to the minimum of customs formalities at international boundaries; the acceleration of such trains as the Arlberg-Orient express, the Simplon-Orient express, the Nord express and the Orient express; the introduction of new tourist trains and special through cars, and the reintroduction of pre-war through sleeping car service between Paris and London via the Dover-Dunkirk ferry.

Railroad Employees' Earnings Make New High

Average hourly earnings of all railroad wage earners combined in June, 1946, were 19.8 per cent over the average for March of this year, according to an analysis of railroad payroll statistics by the National Industrial Conference Board. The June average of $1.174 set a new high for the compilation. Each of the individual groups of wage earners surveyed received peak

hourly earnings. Highest pay for the month went to road passenger engineers, who averaged $2.627 per hour. Road passenger conductors and road passenger firemen received over two dollars for the average hour during June.

With the large increase in hourly earnings, weekly earnings of all workers combined were also at a new peak level in June. The June average weekly return was $58.30, almost $10 more than the March average.

All three major wage-earner groups (skilled shop labor; unskilled wage earners; and train and engine service) showed peak weekly earnings in June of this year. Since January, 1941, the base date for allowable increases in wage rates of 33 per cent under the cost of living "formula" set forth in President Truman's Executive Order 9697 (February 14, 1946), the actual weekly earnings of all wage earners on Class I railroads have risen 60.6 per cent, according to the conference board's analysis.

Real weekly earnings (or actual weekly earnings adjusted for changes in the consumers' price index in terms of 1923 dollars) also reached a new high, it went on to say. Using 1923 as 100, the index for June, 1946, stood at 181.7. This topped the previous high (of February, 1944) by 6.1 per cent.

Truman's Coal-Strike Stand Disappoints Rail "Labor"

"The attitude displayed by the government in dealing with the coal dispute is regrettable and disappointing," the Railway Labor Executives' Association said in a statement issued this week. The statement was issued December 4, the day on which Judge T. Allen Goldsborough of the United States District Court for the District of Columbia imposed fines of $3,500,000 and $10,000, respectively, on the United Mine Workers of America and its president, John L. Lewis, after finding them in contempt of court because of their refusal to withdraw the contract-cancellation notice which launched the strike in the government-operated mines.

"Regardless of the technical rights of either party to the disputed agreement," the R.L.E.A. statement continued, "there rested on the government the duty and responsibility to deal fairly and equitably with the complaints and requests of the mine workers for an adjustment in their hours of work, wages and conditions of employment. Certainly a government dedicated to the principles of fairness and equality for all could do no less.

"The lack of imagination and statesmanship in dealing with this problem clearly demonstrates a total failure to properly appreciate the national interest and the fundamental responsibilities of government. The use of injunction and oppression to continue and enthrone injustice among the mine workers is reprehensible and repugnant to a free people.

"We condemn the arbitrary conduct of the government and submit the public interest demands an immediate settlement of the issues upon a basis of equitable consideration of all interests involved. To this end we propose that: (1) The decision of the district federal court be held in abeyance; (2) the miners agree to return to work immediately; (3) the President appoint a disinterested commission to promptly inquire into the complaints of the miners regarding hours of work, wages and working conditions and report its recommendations in 30 days from date of appointment, and that same shall become effective as of the date the miners return to work; (4) that all parties agree to accept the recommendations of the commission; and (5) that the pending court proceeding be vacated and dismissed."

Purchases & Stores Division Plans 1947 Meeting

Following a meeting of the general committee of the Purchases and Stores division of the Association of American Railroads in New York on November 21, it was announced that a regular three-day annual business meeting will be held at Atlantic City, N. J., during the week of June 23-28, 1947.

The New York meeting was presided over by F. S. Austin, vice-chairman (manager of purchases and stores, New York Central System). The General committee completed its work on subject committee assignments and personnel for the ensuing year. These subjects and the chairmen are as follows:

Subject 1—Purchases and Stores Department Manual — Recommended Rules and Practices. G. A. Goerner, general storekeeper, Chicago, Burlington & Quincy, Chicago.

Subject 2—Standard Material Classification. C. D. Longsdorf, general storekeeper, New York Central System, Collinwood, Ohio.

Subject 3—Scrap, Handling and Preparation—Classification and Sale. J. J. Collins, supervisor, scrap and reclamation plant, Erie, Meadville, Pa.

Subject 3A—General Reclamation. L. F. Duvall, supervisor reclamation, Atlantic Coast Line, Wilmington, N. C.

Subject 4—Material Stock Report—Inventory and Pricing Methods and Practices. J. W. Miles, district storekeeper, Illinois Central, Memphis, Tenn.

Subject 5—Forest Products. E. H. Polk, purchasing agent, Southern Pacific, Portland, Ore.

Subject 8—Shop Manufacturing. C. E. Swanson, assistant general storekeeper, Chicago, Burlington & Quincy, Chicago.

Subject 9—Fuel—Coal, Fuel Oil and Diesel Fuel Oil. J. E. May, fuel agent, Baltimore & Ohio, Baltimore, Md.

Subject 12—Purchasing Department—Organization and Procedure. W. A. Clem, purchasing agent, Reading, Philadelphia, Pa.

Subject 13—Stationery and Printing. J. T. Van Horn, stationer, Missouri Pacific, St. Louis, Mo.

Subject 14—Fire Prevention — Safety Practices—Purchases and Stores Department. W. M. Robertson, general storekeeper, Chicago & Eastern Illinois, Danville, Ill.

Subject 15—Storage and Material Handling Facilities. W. L. Oswalt, stores manager, Pennsylvania, Philadelphia.

Subject 16—Simplification and Standardization of Stores Stock. L. E. Field, supervisor of material standards, Boston & Maine, North Billerica, Mass.

Subject 19 — Capacity Loading and Prompt Handling of Cars of Company Materials and Reduction of Non-Revenue Ton Miles. C. J. Pearce, assistant general storekeeper, Southern Pacific, El Paso, Tex.

Subject 21—Purchasing, Storage and Distribution of Equipment and Supplies Used in Dining Cars, Hotels and Commissaries. E. A. Bromley, general purchasing agent, Canadian National, Montreal, Que.

Subject 23—Material Conservation. C. J. Hoffman, assistant purchasing agent, Pennsylvania, Chicago.

Subject 29—Exchange of Materials. H. A. Lockhart, assistant to purchasing agent, Baltimore & Ohio, Baltimore, Md.

Subject 34—Maintenance of Way and Construction Materials (Including Signal, Telephone and Telegraph)—Purchasing, Storing and Distribution. C. J. Knight, chief storekeeper, Louisville & Nashville, Louisville, Ky.

Subject 37—Stores Department Organization, Practices, Record and Stock Control. D. E. Dawson, general storekeeper, Gulf, Mobile & Ohio, Mobile, Ala.

Subject 40—Loss and Damage Prevention—Salvage and Disposition. P. E. Welch, assistant general storekeeper, Texas & New Orleans, Houston, Tex.

Subject 42—Diesel Locomotive Parts—Purchasing and Storekeeping. F. J. Steinberger, assistant general purchasing agent, Atchison, Topeka & Santa Fe, Chicago.

Fire Destroys N. Y. C. Freight Station at Lafayette, Ind.

The freighthouse of the New York Central at Lafayette, Ind., was totally destroyed by fire on November 26. The building, which was a 50-ft. by 300-ft. structure served by three tracks, was also used by the New York, Chicago & St. Louis. The cause of the fire was not immediately determined.

All freight stored in the building was destroyed, as were freight bills and station records, along with four maintenance of way department camp cars. Because of the destruction of records, the total loss was uncertain, but preliminary estimates place the cost of building a new freighthouse at more than $100,000.

Club Meetings

The Canadian Railway Club has scheduled a meeting on December 9 at the Mount Royal hotel, Montreal, at 8 p.m. A paper entitled "Railways Do More than Move Trains" will be presented by J. S. MacGowan, director of the department of agriculture and colonization of the Canadian National.

The Car Department Association of St. Louis will meet December 17 at 8 p.m. at the Hotel DeSoto, St. Louis, Mo. Election of officers for the year 1947 will be followed by the annual Christmas party.

The General News Department is continued on page 983, while a list of current publications will be found on page 987.

With the Government Agencies

Tight Freight Embargo Issued by the I. C. C.

Acts at request of O.D.T. which has ordered further cut in passenger service

Acting upon Office of Defense Transportation representations that the continuing miners' strike made the restrictions necessary to conserve remaining railroad stockpiles of bituminous coal, the Interstate Commerce Commission on December 3 issued Service Order No. 649 to embargo all rail freight and express shipments except certain commodities and supplies necessary to the maintenance of public health and safety. The embargo was scheduled to become effective at 12:01 a.m. December 6, and it was accompanied by a parcel post embargo issued by Post Office Department, also at the request of O. D. T.

On its own part, O. D. T. issued Amendment No. 1 to General Order ODT 68, increasing the recently-ordered 25 per cent reduction in passenger locomotive mileage performed by coal-fired engines to 50 per cent, effective at 11:59 p.m. December 8. The 50 per cent reduction is from the mileage operated on November 1. Also, O. D. T. issued General Perimit 16C, Revised-1, to establish a permit system, effective December 4, on all export movements except bulk grain, livestock, and shipments for the armed services.

Railroads' Coal Piles Down—Announcing the restrictions in a December 3 statement, Colonel J. Monroe Johnson, director of O. D. T., said he acted upon reports indicating that the railroads had on hand a 27-day supply of coal based upon the pre-embargo rate of consumption. "My deadline," the colonel continued, "was set at 26 days. We are too close to that to postpone action any further. Even with industry closing down production because of lack of coal, the backlog of products waiting to be moved is heavy enough to 'break the back' of the railroads if the present rate of burn were permitted to continue. Industry and the public will be hard hit by the restrictions but we cannot continue to gamble with the coal stocks on hand. We have an entire nation to feed."

The O. D. T. statement further revealed that Colonel Johnson's request for the I. C. C. embargo order had pointed out that the railroads consume 25 per cent of the bituminous coal output. The O. D. T. director said further that a continued stoppage of mining would "rapidly but certainly force common carriers by railroad to cease operation." O. D. T. officials, the statement went on, have estimated that the embargo would reduce freight and express shipments by 50 per cent of normal. All the restrictions—freight, passenger, and parcel post—"are expected to extend the operation of coal burning locomotives until about the middle of February."

The service order establishing the embargo was issued to apply to railroads, express companies, and freight forwarders insofar as they use railroads. For shipments other than those exempt, it sets up a permit system with Warren C. Kendall, chairman of the Car Service Division, Association of American Railroads as general permit agent. Also, a permit agent was appointed on each road with authority to issue permits for carload and l.c.l. shipments local to the road, permits for all interline traffic coming from the general permit agent.

Exemptions—Commodities exempt from the provisions of the order were listed as follows:

1. All (fresh, frozen, canned, dried or otherwise processed) food for human consumption, feed for animals or poultry. All ingredients used in preparation of food and feed when consigned to manufacturers, processors or packers. Seeds for food or feed products. Drinking water. Ice—dry, manufactured and natural.
2. Livestock and live poultry.
3. Coal, coke, coke oven by-products, charcoal. Wood for fuel purposes. Crude petroleum, gasoline, fuel oil, kerosene, lubricating oils, lubricating grease, liquefied petroleum gas. Petroleum coke, petroleum wax, candles. Motor fuel, anti-knock compound. Petroleum asphalt when shipper certifies on bill of lading that it is to be used as fuel or in the production of briquettes.
4. Medicines, drugs, surgical instruments and surgical dressings. Hospital and sick room supplies, medical, optical and dental supplies. Diapers, sanitary pads, soap (including substitutes, washing and cleansing compounds). Caskets and funeral supplies.
5. Printing ink, newspapers and magazines, newsprint, paper and mats for newspaper and magazine publication. Films. Toilet paper; paper plates, cups and eating utensils.
6. Chemicals used for purification or treatment of municipal water supply or sewage disposal. Chemicals used for sanitation by mill and food processors or distributors or laundries. Chemicals consigned to manufacturers of medicines and drugs. Insecticides and fungicides. Plant refuse, manure, sewer sludge and garbage for movement in compliance with municipal, health and sanitary regulations.
7. Empty containers and necessary packing and packaging materials for all commodities specifically exempt in this order.
8. Repair or replacement parts and supplies necessary to produce and manufacture fuel and maintain essential transportation operation (rail, highway, air and water) during the existence of the emergency. Supplies for public utility power plants.
9. Articles covered by express money classification when moving in express service.

General Permit No. 1 issued by Mr. Kendall to become effective concurrently with the order exempts traffic handled in switching service from its provisions and provides that traffic handled by short-line railroads less than 100 miles in length will be considered as traffic handled in switching service. A December 3 circular from Mr. Kendall advised that applications should be filed for general permits authorizing interchange in cases where railroads using other than coal connect so that interline traffic can be handled without moving on a road which burns coal.

Affects Intrastate, Foreign Traffic—The embargo applies to intrastate and foreign commerce as well as interstate

(*Continued on page 976*)

Proposes New Split of East-West Rates

I. C. C. gets second proposed report on complaint of six western roads

Making the second proposed report which has been issued on the seven-year-old complaint of six dissatisfied western railroads, Examiner Howard Hosmer has recommended that the Interstate Commerce Commission prescribe new bases for the division between eastern and western roads of joint class and percentage or column rates and certain commodity rates between Official and Western Trunk-Line territories. The Hosmer report, which follows one made early in 1944 in the same proceeding (No. 28277 and the related No. 28589), would prescribe the new divisions on the basis of a finding that present arrangements are unjust, unreasonable and inequitable.

The proceeding presents the question of the lawfulness of divisions of rates between Official and Western territories, prescribed in *Western Trunk Line Class Rates,* 164 I.C.C. 1, and supplementary commission decisions, the basic adjustment having become effective 15 years ago, on December 3, 1931. Also involved are divisions of certain rates which consist of aggregate-of-intermediate commodity rates, principally those on fresh meat from Western Trunk-Line to Official territory.

Basis of Divisions—Prior to the establishment of the joint class rates prescribed in the *Western Trunk Line* case, the class rates between Official and Western territories had been made by combination. Thus there was in 1931 no established basis of divisions which could be applied to the newly-prescribed joint rates, and the revenue therefrom for several years, as Mr. Hosmer put it, "was settled in accordance with the conflicting views of the lines which collected the charges." Effective April 1, 1935, the two groups of roads agreed on a temporary uniform basis under which divisions were based on a first-class rate prorate, using as factors the first class rates between the point of origin or destination and the point of interchange but deducting one percentage point from the western division and adding one point to the eastern division.

In December, 1938, the eastern roads and western lines except the six complainants in the title case agreed on a permanent basis of divisions which became effective October 1, 1939. It was applied retroactively to December 3, 1931, in accordance with the terms of the contract governing the temporary basis. Under this "permanent" basis, which has become known as the 500-A divisions, rates on l.c.l. are divided

in accordance with the method prescribed by the temporary basis. Single-factor rates are divided by a modified mileage prorate, under which the western factor is the short-line distance between the interchange point and the western point of origin or destination, inflated 25 per cent, plus 120 miles as a terminal element, and the eastern factor is arrived at in the same way but with no inflation. (The western inflation factor is not applied in dividing rates to and from extended zone C.) The 500-A basis further provides for the use of actual interchange points as dividing points, and on traffic which crosses the Mississippi river between St. Louis, Mo., and East St. Louis, Ill., the latter is considered the interchange and dividing point. It also provides for a minimum primary division of 15 per cent.

The aggregate-of-intermediate commodity rates embraced in the present report were not affected by the class-rate revision of December 3, 1931, but they became involved in the divisions controversy. Thus the 500-A basis provides that on shipments subject to aggregate-of-intermediate rates, the factors of which apply to and from points of interchange, the rates will be divided as made; but where the rates on such shipments are made by combination of rates to and from points which are not points of interchange, or where the combination rates are based on a route other than the route of movement, the basis of divisions applicable to carload shipment on single-factor rates above described is applied, subject to the application of local rates to and from points of interchange as maxima.

Six Complainants—As indicated above, the complainants in the title case refused to go along on the December, 1938, agreement which established the 500-A basis, and they filed their complaint on May 22, 1939, more than four months before the new basis became effective. These complainants are the Chicago Great Western, the Missouri-Kansas-Texas, the Kansas City Southern, the Chicago, Rock Island & Pacific, the St. Louis-San Francisco, and the Missouri Pacific. The complaint names other western roads as defendants along with the eastern lines. In addition to bringing the divisions into issue, the complaint also raises a question concerning the incidence of bridge tolls and river transfer charges at St. Louis and East St. Louis, which are now borne by the western lines.

The complaint in the related No. 28589 is in the nature of a cross-complaint filed November 27, 1940, by substantially all roads in Official territory. It names as defendants the six dissatisfied western roads and certain of their short-line connections but the other western roads did not join as complainant parties. This complaint alleges that the complainants in the title case are now receiving unjust, unreasonable and inequitable divisions.

Examiner Hosmer could not find that the complainants in the title case were proposing any definite system as a substitute for the 500-A basis on which they centered their attack. He noted that their brief stated that an equitable arrangement would be a prorate of the first-class rates west and east of the gateways, but "they made no formal request for a finding to that effect and in oral argument they definitely disclaimed any proposal of a first-class prorate." Meanwhile, defendants in the title case requested in their brief findings which would prescribe the 500-A basis with no inflation in the distances used in determining the factors of the western lines; but in oral argument they "withdrew this request and stated that they were willing to divide rates with complainants on the 500-A basis including the inflation."

Modifies 1944 Proposals—The western defendants in the title case filed an answer to the complaint, denying that they were receiving divisions which were unsatisfactory or which were prejudicial to complainants. However, the previous proposed report of 1944 recommended a basis of divisions more favorable to the western lines than the 500-A basis, and seven of the western defendants supported the findings recommended by the examiner.

With this backround outlined, Examiner Hosmer proceeded to review the evidence which led to his conclusion that a new basis should be prescribed. In the record were results of a traffic test made by the complainants and a more comprehensive study made by defendants. The former showed that on the temporary basis, which preceded adoption of the 500-A basis, the western lines received 48.6 per cent of the interline revenue and the eastern lines 51.4 per cent; the indicated divisions under the 500-A basis were 44.3 and 53.7 per cent, respectively. The defendants' study indicated temporary-basis percentages of 49.2 for the western lines and 50.8 for the eastern lines; and respective 500-A percentages of 46 and 54.

Generally, the examiner's recommended findings are calculated to provide a basis more favorable to the western lines than 500-A. In making them he was guided by the commission's decision in *Southwestern-Official Divisions,* 234 I.C.C. 135. The recommended basis would be bottomed on prescribed divisional factors with a single set of factors for Official territory and two different sets for Western Trunk-Line territory—one applying on traffic to and from zone 1 and the other to and from other western zones. The factor table would be built up in 50-mile blocks, and that set out in the proposed report's appendix runs up to 1,200 miles with the suggestion that it "be continued, if necessary, at the same rate of progression."

For 50 miles, for example, the table shows an eastern factor of 46, and western factors of 50 for zone 2 and 54 for other zones. Other entries include: 100 miles—eastern, 65, western zone 2, 70, other western zones, 76; 500 miles-eastern, 144, western zone 2, 155, other western zones, 168; 1,000 miles—eastern, 216, western zone 2, 233, other western zones, 253.

These factors, converted into percentages, would govern divisions of the joint rates, subject to a minimum primary division of 15 per cent. Revenue from shipments subject to aggregate-of-intermediate rates which are interchanged at the rate-making point would be divided by allowing each carrier group its respective rate which constitutes a component of the aggregate rate. Revenue from shipments subject to aggregate-of-intermediate rates made by combination on upper Mississippi river crossings which are interchanged at Chicago or Peoria, Ill., would be divided by allowing the western group of carriers its respective rate which constitutes the component of the aggregate rate for the transportation west of the rate-making point and a subdivision of the component of the aggregate rate for the transportation east of the rate-making point. Revenue from shipments subject to aggregate-of-intermediate rates which do not move through the points on which such aggregate rates are made would be divided on a rate prorate using as factors the rates which would be applicable as components of aggregate rates via the point of interchange in the absence of a lower combination via another gateway.

Bridge Toll Allocation—With respect to bridge tolls and river transfer charges at St. Louis and East St. Louis, the recommended finding is that they should be paid out of the eastern division where the shipment is delivered by an eastern carrier to a western carrier and out of the western division where the shipment is delivered by a western carrier to an eastern carrier.

The examiner would have his recommended findings restricted to divisions of rates to and from points served directly by the complainants, which would rule out extended zone C. This limited application is the only concession Mr. Hosmer would make with respect to the contention of seven of the western defendants that their divisions could not be called in issue. Under section 15 (6) of the Interstate Commerce Act, the proposed report said, divisions may be changed upon a proper showing in a hearing even though they are agreed upon by interested carriers. Meanwhile, Mr. Hosmer, after considering "all circumstances" with respect to prescribing the new divisions retroactively concluded that "a finding that the divisions have been unreasonable in the past would not be warranted." Exceptions to the proposed report are due January 2, 1947, and reply exceptions on January 22, 1947.

Bus Fare Investigation

The Interstate Commerce Commission has postponed from December 11 until January 16, 1947, the second prehearing conference in the general No. MC-C-550 investigation of bus fares. The first conference was held October 10 and 11 before Commissioner Lee and Examiner Michael T. Corcoran.

Car Service Orders

Interstate Commerce Commission Service Order No. 646, effective from December 4 until April 15, 1947, unless otherwise modified, provides that for carriers' convenience refrigerator cars loaded with shipments of fresh or green vegetables originating in the Salinas-Watsonville district of California may be initially iced by the Southern Pacific at Roseville, Calif., or by the Western Pacific at San Jose or Stockton, where bunker icing on such shipments is not otherwise prohibited by order of the commission.

Acting in conformity with President Truman's plan giving preference to export movements of grain for the foreign relief program, the commission this week issued

two service orders directing the railroads to give priority to such shipments and setting up permit systems for other grain shipments in the areas involved. Service Order No. 647 establishes the priority and permit set-up with respect to grain offered for loading at points in Oregon, Washington and Idaho (except points on the Union Pacific east of Huntington, Ore., and points on the Utah-Idaho Central in Idaho) or at Paradise, Mont., and Troy, or west thereof. Service Order No. 648 establishes a similar set-up with respect to grain offered for shipment at Denver, Colo.; Atchison, Kans.; Hutchinson, Salina, Newton, Topeka, Whitewater, Wichita, Kansas City, Mo., St. Joseph, Fremont, Nebr., Omaha, Enid, Okla.; Thomas, Amarillo, Tex.; Dallas, Greenville, Plainview, and Fort Worth. F. S. Keiser, 209 South Wells street, Chicago, is general permit agent under both orders, which become effective December 9 and expire March 10, 1947.

Amendment No. 3 to Service Order No. 221 has postponed from December 5 until April 30, 1947, the expiration date of that order which directs railroads in Washington and Oregon to substitute cars shorter than 40 ft. 6 in. when longer cars are ordered for loading cedar shingles.

Amendment No. 1 to Service Order No. 534 postpones from December 20 until June 30, 1947, the expiration date of that order which appoints W. C. Kendall, chairman of the Car Service Division, Association of American Railroads, as I. C. C. agent to control the distribution of empty cars.

To provide still further relief in the aftermath of the recent maritime strike, the commission issued General Permit No. 7 under Service Order No. 422 to authorize the railroads to disregard, as to cars arriving at ports prior to 11:59 p. m., November 20, the order's provisions requiring that cars on hand 10 days be unloaded forthwith where unloading is a railroad responsibility.

Brake Shoe and Passenger Car Output Increased in October

Increases in the production of railroad passenger cars and brake shoes during October as compared to the previous month were offset by a reduction in the output of freight cars, according to Civilian Production Administrator John D. Small's latest "Monthly Report on Civilian Production."

The report blames steel shortages for the decrease in freight car production, which dropped 5 per cent from 4,016 cars in September to 3,828 cars in October. The latter total also was 22 per cent below the August high of 5,141 cars. As of November 1, unfilled freight car orders amounted to 105,000 —3,000 less than on October 1—the decline resulting from a reduction in export orders from 42,000 to 39,000.

According to the report, production of freight cars for export increased from 671 in September to 2,900 in October, that total representing the first deliveries on the French order for approximately 37,000 small 20-ton cars for the rehabilitation of the French railroads. The report said that deliveries on the French order, which was placed last January upon approval of the United States Government, normally would have begun last May, but that "the steel and coal strikes and other shortages delayed the start of this production."

According to Mr. Small's report, October production of passenger equipment for domestic roads increased about 33 per cent to 45 cars, as compared to the September output of 34 cars, but still remained below the August production of 68 cars, the highest month since the end of war. Shortages of components and specialties again were listed as the reason for the low production level.

Noting that brake shoe production in October increased 23 per cent over the September output and "far surpassed that of any previous month of 1946," the report observed that representatives of the brake shoe industry and of the railroads contend that "it is highly essential that production be maintained at this high level as long as the present volume of freight continues."

"The October performance was made possible through the substantial support for steel and pig iron purchases provided by C. P. A.," the report continued. "It is estimated that without this support, production cannot be maintained at more than 50 per cent of the October level."

Missouri Pacific Will Install Electric Switch-Locking

Acting upon the Missouri Pacific's return to a show-cause order wherein it agreed to make the installations, subject to approval by its reorganization court, the Interstate Commerce Commission has ordered that road to provide on or before January 1, 1948, electric switch-locking at all hand-operated switches controlling movements between sidings and main tracks on its lines where trains are operated by signal indication only. As noted in the *Railway Age* of September 7, page 420, the show-cause order resulted from the commission's investigation of a July 10 accident on the M. P. line near Washington, Mo., the accident having been a side collision between a passenger train and a freight train's locomotive which fouled the passenger train's track after it had been detached and was proceeding on a siding to the rear of its own train to switch out a car.

Non-Certificated Air Lines Get New Regulatory Proposals

The Civil Aeronautics Board has issued a new proposed revision of Section 292.1 of its Economic Regulations as a further step in its plan to tighten provisions of that section, which was originally adopted in 1938 to exempt non-certificated air carriers from the Civil Aeronautics Act's regulatory provisions. The new revision was prepared by the Board after it considered comments submitted on the original draft issued last May.

As noted in the *Railway Age* of June 15, page 1198, the promulgation of this earlier draft was one of several moves made by the board about that time to increase its regulatory control over the non-certificated operations which had been developing rapidly since the end of the war. Among the other moves were the imposition of safety requirements on non-certificated carriers; the issuance of an opinion in the investigation of so-called non-scheduled operations which the board launched in June, 1944; and two decisions finding that air lines claiming to be non-scheduled operators were in fact conducting regular operations without the required certificates of public convenience and necessity.

The present action of the board affords interested parties an additional opportunity to comment on the proposed new regulations. It was taken because the board's views are still tentative and the proposals at this stage "do not represent unanimous conclusions by the board." On January 6, 1947, the board will convene for the purpose of hearing oral argument upon the new draft, meanwhile receiving such written comment as interested parties may care to submit.

Like its predecessor, the new draft would divide the non-certificated irregular air carriers into two groups according to weight, Group I embracing operators which use any single aircraft unit having an allowable gross take-off weight in excess of 6,000 lb., or five or more aircraft units having an aggregate allowable gross take-off weight in excess of 25,000 lb., and Group II embracing all other non-certificated irregular carriers. The proposed regulations would cover Group I more comprehensively than Group II. They would also cover so-called indirect air carriers or forwarders, operating as does the Railway Express Agency in its air-express services.

In the latter connection, it is stipulated that the exemption under which these indirect carriers have been operating would continue in effect only until 60 days after the board shall have made final disposition of its pending *Freight Forwarder Case,* Docket No. 681.

Thompson Brothers Ask I.C.C. to Dismiss Alleghany Complaint

Guy A. Thompson, trustee of the Missouri Pacific, and his brother, Frank A. Thompson, trustee of the St. Louis-San Francisco, have filed with the Interstate Commerce Commission separate motions asking dismissal of the Alleghany Corporation complaint charging them with violations of the Interstate Commerce Act's section 5 which relates to combinations and consolidations of carriers. Meanwhile, the commission has cancelled the public hearing in the case which had been scheduled for December 10. As noted in the *Railway Age* of November 9, page 775, Alleghany recently notified the commission of its withdrawal from further participation in the proceeding which is Docket No. 29533.

Maritime Commission Would Stay in Shipping Business

The United States Maritime Commission has made public a letter written by its chairman, Vice Admiral W. W. Smith, to John R. Steelman, director of the Office of War Mobilization and Reconversion, in which the former asserts that expiration within the next 90 days of the U.S.M.C.'s emergency authority to operate coastwise and intercoastal shipping will result in "chaotic conditions" if "those essential services" are disrupted. At the same time, Ad-

miral Smith predicted "serious consequences" to the reconversion program and national economy.

According to the U.S.M.C., its studies "indicate that present conditions do not warrant expectation that these services can be carried on under private operation on a scale to meet present future needs." Admiral Smith's letter said that the commission was "anxious to cooperate" with the O.W.M.R. to prepare "remedial measures" and suggested as one of two alternatives the possibility of continuing temporary government operation of ships in the domestic trades until the conclusion of "freight rate proceedings" before the Interstate Commerce Commission which "might result in increases sufficient to permit commercial operation."

"The experience of the War Shipping Administration and the Maritime Commission in the intercoastal trade this past year has demonstrated that (1) cargo is available in large quantities and is increasing; (2) the revenue obtained per ton of cargo carried and per voyage is slightly higher than prior to World War II; and (3) the direct operating costs, due to increases in wages and other vessel and voyage expenses, have soared tremendously," Admiral Smith's letter said. "The net result is that the intercoastal trade, in order to operate on a break-even basis or at a moderate profit, needs substantially higher freight rates on commodities generally, and especially on those commodities on which unreasonably low rates are maintained by the competitive rail carriers.

"The War Shipping Administration and the Maritime Commission anticipated that operating losses would be sustained during the early months of domestic service, but decided to undertake the operation after strong requests had been made by the Secretary of Agriculture, the director of the Office of Defense Transportation and the director of the Office of War Mobilization and Reconversion to supply all practical coastwise service as an aid to the rapid reconversion of industry and the overcoming critical car shortages which became apparent during the summer and are still continuing."

The letter revealed that results for the two most recent months of full operation, July and August, indicated an operating loss of approximately $600,000 per month. As the other alternative to avoid what was termed "serious disruption" of the domestic services when the U.S.M.C.'s present authority ceases, Admiral Smith suggested that the U.S.M.C. adopt a policy permitting the chartering of vessels to domestic steamship lines at nominal rates of hire. He said that such a plan might "reduce" financial losses, but would not "wipe them out altogether."

Santa Fe Authorized to Buy 1,500 Miles of Truck Routes

Rights on common-carrier truck routes extending over approximately 1,500 miles will be acquired by the Santa Fe Transportation Company for operation in services supplemental to the train service of its parent railroad, the Atchison, Topeka & Santa Fe, under authority granted by Division 4 of the Interstate Commerce Commission in a recent report. The report on further hearing in No. MC-F-2289 also embraces two other proceedings, and it approves acquisition of control by the railroad of the routes to be purchased by its subsidiary.

The title case involves the transaction whereby Transportation would buy from the Hall Motor Freight Company certain operating rights, including a 438-mile route between Wichita, Kans., and Pueblo, Colo. In the prior report of October 27, 1944 (see *Railway Age* of November 4, 1944, page 699), Division 4 had disapproved this acquisition on the basis of findings that it should not be authorized on an unrestricted basis while conditions limiting the service to that which would be supplemental to Santa Fe train service would preclude profitable operation.

After making a further study of the situation the applicants succeeded in having the case reopened; and at the further hearing they represented that they would be able to conduct profitable and economical operations over the Hall routes if they were restricted by the so-called key-point condition—provided Dodge City, Kans., and Pueblo were the only key points specified. The conditions set out in the present report apply to all the operations involved, and they include a key-point condition naming Wichita, Kans. and Hutchinson, as well as Dodge City and Pueblo, as key points between, through, to or from not more than one of which any shipment is to be transported by truck.

The other routes which the report authorizes Santa Fe to acquire are 425 miles from Vincent Truck Lines of Anthony, Kans., including routes between Wichita and Fairview, Okla., between Anthony and Woodward, Okla., and between Anthony and Blackwell, Okla.; and 500 miles from the Riley Truck Line of Pratt, Kans., including routes between Hutchinson and Coolidge, Kans., between Dodge City and Elkhart, and between Sublette and Manter. The Vincent routes have been operated by Transportation since October, 1946, under a lease which expires April 18, 1947.

Oppose General Order in 50 M.P.H. Signaling Case

Railroads are opposed to issuance by the Interstate Commerce Commission of any general order of nationwide application in the Docket No. 29543 proceeding which the commission instituted last May to determine "whether it is necessary, in the public interest," to require any or all railroads "to install block signal system, interlocking, automatic train stop, train control and/or cab signal devices, and/or other similar appliances" upon the whole or any part of lines on which any train is operated at a speed of 50 m.p.h. or more. The opposition was expressed in a brief filed with the commission this week by counsel for the carriers.

The brief urged the commission to continue its past practice of proceeding in signaling matters through individual investigation and individual show-cause orders. "We think that approach the sound one and that it would be facilitated by the record in this proceeding," it added.

The commissifon's investigation is being conducted under the supervision of Commissioner Patterson, the pre-hearing conference held at Chicago on June 18 having been followed by hearings at Cincinnati on October 2 and 3. While the order instituting the investigation referred to lines on which any train is operated at 50 or more m.p.h., the brief said that the commission's questionnaire forms and statements made by Commissioner Patterson at the hearing "make it clear that the inquiry is directed to mileage where maximum speeds of 50 or more m.p.h. for freight trains and 60 or more m.p.h. for passenger trains are authorized." The request that the commission refrain from issuing any general order came after counsel had completed their detailed review of the record, including their appraisals of the value and significance of the evidence.

"This record," the brief said, "furnishes no sufficient basis for a general order. We go further, and say that no investigation national in scope could, within practicable limits of time and cost, furnish a basis for such an order. . . .

"It would seem too clear for argument that what might reasonably be required of a railroad moving dense traffic in congested territory might be grossly oppressive in the case of a railroad with thin traffic located in wide open spaces. It would also appear too clear for argument that what is requisite to safe operation on certain trackage would go far beyond the reasonable requirements of safety on other trackage. Lines of heavy traffic and lines of light traffic, curved lines and straight lines, lines in the mountains and lines on the plains, lines equipped with finest motive power and those not so equipped, lines running short trains and lines running long trains, fast lines and slow lines, rich lines and poor lines—all these may not be stirred together and boiled down to a typical average mileage utilizable as a specimen in respect of which a nationwide code of minimum safety requirements can be evolved. . . . The regulation would be addressed to an imaginary railroad not having actual being. . . .

"The commission has before it on this record information as to maximum authorized speeds and types of signal protection the country over. But it has no adequate information as to train density and no information at all regarding terrain, climate, curvatures, grades, motive power, weight and length of trains, financial status, or any additional relevant factors. All these factors could not be developed on a national scale. Yet some or all would certainly be pertinent to consideration of signaling requirements reasonably applicable in any actual situation."

The brief also discussed that phase of the inquiry which was directed to the determination of whether the definitions included in the Rules, Standards and Instructions prescribed by the commission's order of April 13, 1939, should be amended to include a revised definition of the term "medium speed" and to add a definition of the term "low (restricted) speed." The former is now defined as "a speed not exceeding one-half authorized speed." On this matter the brief directed the commission's attention to "medium" and "low" or "low (restricted)" speeds now permit-

ted where automatic train stop and train control systems are in use, suggesting that it should bear in mind that "existing systems have been specifically designed for speeds presently allowed and have in general proved reliable and safe in actual operation."

Derailment Caused by Excessive Speed on Curve

Excessive speed on a curve caused the September 26 derailment of a Union Pacific passenger train on a jointly-used line of the Atchison, Topeka & Santa Fe near Oro Grande, Calif., according to the report of an Interstate Commerce Commission investigation conducted under the supervision of Commissioner Patterson. The accident, reported in the *Railway Age* of October 5, page 571, resulted in the death of five passengers and one chair-car attendant, and the injury of 123 passengers, six dining-car employees and three train-service employees.

It occurred at 7:02 a.m., when it was daylight and the weather clear, on that part of the Santa Fe's Los Angeles division extending between Barstow, Calif., and San Bernardino—81.3 miles of double-track line over which trains moving with the current of traffic are operated by signal indications. U. P. trains are regularly operated over the line, and the train here involved was U. P. No. 223, a westbound first-class passenger train.

The point of derailment was 2.32 miles west of Oro Grande and 33.82 miles west of Barstow. From the east there are, in succession, a tangent 2,074 ft. in length; a 3 deg. 11 min. curve to the right 1,156 ft.; a tangent 3,137 ft.; a compound curve to the left, the maximum curvature of which is 2 deg. 1 min., 2,954 ft.; a tangent 2,513 ft.; and a 6 deg. 3 min. curve to the right approximately 395 ft. to the point of accident and 576 ft. westward. On the curve on which the accident occurred, the track structure consists of 131-lb. rail, laid new in March, 1942, on 26 tread ties, fully tieplated. The maximum superelevation on the curve was 3½ inches, and the gage varied between 4 ft. 8⅜ in. and 4 ft. 8¾ in. At the point of derailment the superelevation was 3⅜ in., and the gage was 4 ft. 8¾ in.

Speed Limitations—Timetable special instructions prescribe for the train involved a 90 m.p.h. speed limit on tangent track, 60 m.p.h. on the 3 deg. 11 min. curve about one mile east of the point of the accident, and 40 m.p.h. on the curve on which the derailment occurred. A speed-limit sign bearing the numerals 40—30 is located 2,995 ft. east of the east end of the latter curve, and a similar sign bearing the numerals 60—50 is located 1.55 miles further east.

The report puts the speed of the train at the time of the derailment "in excess of 75 m.p.h." The train consisted of a steam locomotive of the 4-8-4 type, one baggage car, three coaches, two dining cars and five Pullman sleeping cars, in the order named. The three coaches were of lightweight steel construction while the remaining cars were of the conventional all-steel type. The train was six minutes late when it passed Oro Grande three minutes before the derailment.

In the accident the locomotive overturned to the left and continued in tangential line a distance of about 75 ft. westward where it struck the south wall of a rock cut, then it was deflected to the north and stopped on its left side on the eastward main track and at an angle of about 15 deg. to it, with the front end 459 ft. west of the point of derailment. The tender, remaining coupled to the engine, stopped on its left side at the rear of the engine and against the south wall of the cut. Separations occurred between the tender and the first car, and between the first, second, third, fourth, fifth and sixth cars. These six cars were derailed and stopped behind the tender in various positions across the tracks. All were "badly damaged" as was the left side of the engine.

The commission's conclusion that the derailment was caused by excessive speed is based on its finding that the train was apparently moving at the locomotive's overturning speed (76.8 m.p.h.), "as the engine overturned to the outside of the curve without marking the rails, and slid on its left side to the point where it stopped." Meanwhile the engineer had stated that when the engine, which was not equipped with a speedometer, was in the vicinity of the curve's speed-limit sign, the speed was about 50 m.p.h., "and he moved the throttle lever to drifting position and made an 8 or 10 lb. brake-pipe reduction to reduce the speed of the train in compliance with the speed restriction of 40 m.p.h. on the curve." He added that when the engine entered the curve, he moved the automatic brake valve to running position, but soon afterward felt the engine surge to the left, and then he moved the brake valve to emergency position. At the same time he thought that he caught hold of the throttle lever to prevent his falling from the seatbox, and that "he might have moved the lever to open position."

Throttle Open—In the latter connection, examination of the engine disclosed that the throttle lever was latched on the quadrant in full open position, the reverse lever was latched on the quadrant in position for about 35 per cent cut-off in forward motion, the independent brake valve was in running position and the automatic brake valve was between first-service position and lap position. "There was no condition found that would prevent the proper application of the train brakes," the report added. Also, it said that there was no defective condition of the engine prior to the accident, no indication of dragging equipment, defective track, or of any obstruction having been on the track; and the surface, alinement and gage of the track on the curve were "well maintained for the maximum authorized speed of 40 m.p.h."

The fireman was seriously injured in the accident, and he could not be questioned during the investigation. The conductor and flagman, who were in the tenth car, were unable to give an accurate estimate of the speed of the train. They "thought" a heavy service application of the brakes was made several seconds before the accident occurred, but did not observe whether it was released.

Reargument January 8 in U. P. Supervisor Status Case

The Interstate Commerce Commission has set January 8, 1947, as the date for reargument of the case wherein its recent decision affirmed findings of prior reports in which its Division 3 had interpreted and amended outstanding commission orders defining the work railroad employees and subordinate officials to include the work of various Union Pacific supervisors. The decision has the effect of bringing the employees involved under provisions of the Railway Labor Act, and the Association of American Railroads joined the U. P. in its successful effort to have the proceeding reopened for the reargument.

Revision of Motor Accounts Issued by I.C.C.

Division 1 of the Interstate Commerce Commission has made public a November 27 order which modifies the Uniform System of Accounts for Class I Common and Contract Motor Carriers of property. The modifications become effective January 1, 1947.

Brake Shoe Priority Plan Extended Into 1947

The Civilian Production Administration certification plan under which foundries currently receive preference in purchasing pig iron to be used for the manufacture of railroad brake shoes has been extended through the first quarter of 1947. The plan started on July 1.

The continuation of certification authority, provided in an amended Direction 13 to Steel Order M-21, stipulates that foundries which have orders for brake shoes may obtain preference by certifying to that effect in applying to their suppliers for pig iron to be shipped in the first three months of 1947.

Frisco Sees I.C.C. in Error in Motor Acquisition Rulings

Contending that the Interstate Commerce Commission misconstrues the Interstate Commerce Act's section 5(2)(b) with its present holding that, except in unusual cases, unrestricted motor truck rights, if acquired by a railroad or railroad affiliate, must be modified to limit the subsequent operations to those which are auxiliary to train service, the St. Louis-San Francisco and its subsidiary, the Frisco Transportation Company, have asked the commission to reconsider Division 4's decision denying them authority to acquire certain rights of the Missouri-Arkansas Transportation Company of Joplin, Mo. The proceeding is docketed as No. MC-F-2529, and Division 4's adverse report was noted in the *Railway Age* of August 10, page 239.

As reported there the division felt impelled to follow a contemporary 6-to-4 decision of the entire commission even though a majority of the division was among the dissenters. Accordingly, the application was denied because the precedents would have required that the rights be restricted and the railroad and its affiliate had said they would not consummate the transaction

under such conditions. Meanwhile, however, Frisco has been operating the Missouri-Arkansas routes under lease, with commission approval, since May, 1942; and the commission recently authorized an indefinite extension of these lease arrangements (see *Railway Age* of November 23, page 900).

The petition for reconsideration, in which Missouri-Arkansas also joined, attacks the commission's interpretation of section 5 as aribtrary "in its assumed premise that no rail subsidiary may, under said section, acquire existing motor-carrier operations, without operating restrictions limiting those operations to the handling of railroad freight, on railroad billing and at railroad rates." Such a holding is called tantamount to saying that Congress enacted two sections of a law which meant the same thing; and that proof of "public convenience and necessity" under section 207 and proof of "consistency with the public interest" under section 5(2)(b) have identical meanings.

"'Public convenience and necessity,'" the petition went on, "imports that a new and different operation is required. 'Consistency with the public interest,' as used in section 5(2)(b), imports that the proposed 'transaction,' not the 'operation,' be compatible with the public interest. It does not connote a public benefit to be derived nor does it suggest the idea of promotion of the public interest. Aside from differences in the tests set up by Congress, the subject matter of section 207 is the 'operation' to be engaged in, while the subject matter of section 2(5)(b) is the 'transaction' proposed."

Among other arguments, the petition reminded the commission that it had not followed the practice of imposing service limitations when it approved the acquisition of motor bus operations by railroad subsidiaries. This more liberal policy with respect to bus-line acquisitions was set out by Division 4 in a recent decision approving the purchase by the Gulf Transport Company, subsidiary of the Gulf, Mobile & Ohio, of certain operating rights of the Clayton Tinsley Bus Lines (see *Railway Age* of July 6, page 24).

Tight Freight Embargo Issued by the I. C. C.

(*Continued from page 971*)

commerce, but freight originating in Mexico or Canada is covered only when destined to nited States points or when it moves through this country. It does not apply to shipments billed from points of origin prior to the effective date, nor to import shipments from vessels discharging cargo on the effective date.

The parcel-post embargo restricts shipments to parcels not weighing in excess of 5 lb. and measuring not more than 18 in. in length and 60 in. in length and girth combined. Normal limitations on the size of parcel post packages are 70 lb. and 100 in. in length and girth combined. Four priority classes of goods are exempt as follows: Live day-old poultry; seeds, plants and other nursery stock; eggs, butter and other perishable food products; and medicines, drugs, surgical instruments and surgical dressings.

In requesting that this embargo be issued, O. D. T. Director Johnson told Postmaster General Hannegan that the reduction in railroad passenger service would "effect materially the capacity of the railroads to handle the normal volume of mail, including parcel post, which moves at this time of the year." He added that he anticipated that, with the freight embargo in effect, an attempt would be made by many shippers of smaller packages to substitute parcel post for rail and express service.

Meanwhile, the United States Maritime Commission last week announced that it was taking steps "to insure ample water freight service for shippers on the Atlantic, Gulf, and Pacific coasts and intercoastally whose rail service is curtailed by freight car shortages and the soft coal strike." First of these steps was the scheduling of nine extra sailings in eastbound intercoastal service and two extra westbound sailings.

"Ample space," the statement continued, "already is available to shippers in the general coastwise cargo services maintained between North Atlantic, Florida and Gulf ports and additional vessels will be made available in these trades if cargo offering warrants. The Pacific coastwise service maintained by the commission between principal ports in California, Oregon and Washington also offers space to shippers for carriage by water of all domestic freight offered. The Maritime Commission is maintaining close contact with the Office of Defense Transportation to enable the commission to quickly place in service on domestic runs more vessels that might be required to move vital cargoes that cannot be moved by rail during this critical period."

P. R. R. Officer Offers Rebuttal to Robert R. Young

Testimony by Charles D. Young, vice-president in charge of purchases, stores and insurance of the Pennsylvania, that "a deliberate effort" is being made to deceive the public as to the need for replacing the present fleet of railroad passenger cars featured the closing session on November 27 of hearings before Interstate Commerce Commission Examiners Howard Hosmer and O. G. Barber in the No. 29592 proceedings, wherein a so-called buying group of 46 railroads seeks commission authority to purchase the sleeping car business of the Pullman Company.

The Pennsylvania vice-president, testifying in rebuttal to earlier testimony given by Robert R. Young, chairman of the Alleghany Corporation and Chesapeake & Ohio, (see *Railway Age* for November 23, page 894), told the examiners that "people are being misled into believing that it would cost the public nothing to replace existing equipment entirely, and that such a thing is likely to happen." He said that "it would be most wasteful, costly and unnecessary to renew the structure and running gear of passenger and sleeping cars before that is required," adding that "the public would have to pay for this economic waste in the long run."

Amenities Are Modern—Pointing out that cars 20 to 25 years old are maintained to rigid safety requirements as to body structure and running gear and that it has long been the practice of the railroads to periodically renew the interior furnishings and appointments as they go out of date as to arrangements, style, color and materials, Mr. Young declared that an older car, with its appointments and furnishings renewed from time to time, is equal to a new car insofar as passenger safety and comfort are concerned.

Mr. Young said that a passenger car is "a strong steel structure built to, and maintained to meet" what he termed the "rigid standards" of the I.C.C. and the Association of American Railroads. He asserted that railroad cars cannot be compared fairly with vehicles built of thin steel sheets and wood, such as automobiles, and that railroads cars and automobiles "are not similar and do not operate under similar conditions."

The witness said that R. R. Young's proposal to renew the passenger car fleet at the rate of 100,000 cars every seven years would produce a depreciation charge of $1,400,000,000 each year, with a current investment of at least $10,000,000,000 in passenger cars. He added that such a program would result in a financial burden on the railroads which would be "wholly unwarranted" in the light of present and possible future revenues of the carriers from their passenger revenues, adding that the financing of such a program would be "impossible."

Attacking R. R. Young's allegation that orders for large quantities of sleeping cars would greatly reduce the cost per car, the witness stated that "even if several thousand cars were ordered at one time from a single builder, material and labor costs are such that no appreciable reduction in costs could be obtained by volume purchasing."

Car Parts Mass-Produced—The Pennsylvania officer further testified that if 3,000 or 4,000 sleeping cars were ordered at one time, the reduction in the cost of the material made possible by the size of the order would be only "between 1 per cent and 3 per cent." He attributed this minute cost reduction to the fact that practically all material going into sleeping cars and all types of cars, such as wheels, axles, springs, steel sheets, couplers, brakes, air conditioning, electrical equipment, carpeting and paint, have for many years been manufactured by specializing companies under mass production methods and are used not only for new cars but also for current renewals and repairs.

The witness said that the reduction in labor costs "would be very slight, not more than 2 per cent to 4 per cent," and would be obtained only through increased efficiency of the workmen as they become familiar with producing large numbers of the same cars. He added that "about 55 per cent" of the cost of building a passenger car is represented by labor and "about 45 per cent" by materials.

In conclusion, Mr. Young pointed out that during 1945 and 1946, the railroads have ordered a total of 2,125 new passenger

cars, exclusive of those ordered by the government for military use. He said that materials for passenger car construction were not available until the latter part of 1945 and that government allotments of material for some of the specialties needed were not available until this year.

According to the witness, the Pennsylvania has ordered a total of 356 new cars, including 86 from the Budd Company, at a cost of $8,600,000; 63 from the American Car & Foundry Company, at $5,600,000, and 107 from the Pullman-Sstandard Car Manufacturing Company, at $10,500,000, in addition to P.R.R. shop orders for 90 cars for its own lines and 10 for the Long Island.

Other phases of the closing session included a protest by Jacob Aronson, vice-president, law, of the New York Central, to the December 27 deadline set for the filing of briefs in the proceeding. Mr. Aronson said that the date should be advanced, thereby expediting the commission's decision. He said that correspondence of the Department of Justice, which has appealed to the Supreme Court of the United States a federal court decision approving the Pullman sale to the railroads, indicated that the I.C.C.'s findings in the railroads' application would be helpful in determining and clarifying the status of the appeal.

Mellon Stock Not for Sale—Mr. Aronson also introduced an exchange of correspondence between R. R. Young and Richard K. Mellon, chairman of the Mellon National Bank & Trust Company, Pittsburgh, Pa., in which Mr. Young inquired on October 29 whether or not the Mellon interests would be interested in "entertaining any bids on their holdings in the Pullman Company." The C. & O., of which Mr. Young is chairman, and its affiliated roads, are among the chief objectors to the railroads' plan to acquire Pullman's sleeping car business.

"I assume you are inquiring in connection with our equity in Pullman, Inc.," Mr. Mellon replied on November 17. "I wish to state that we have no intention at this time of disposing of our equity in Pullman, Inc., but thank you for writing." Pullman, Inc., is the holding company for the Pullman properties.

Although the hearings concluded November 27, Division 3 of the commission, acting upon a petition submitted by the Department of Justice, authorized on December 3 the issuance of subpoenas *duces tecum* requiring 16 banks to produce documents and other papers relating to their ownership of stock in Pullman, Inc. The banks include the Bank of New York, the Guaranty Trust Company, the Irving Trust Company, the New York Trust Company, the United States Trust Company, J. P. Morgan & Co., Inc., the Bankers Trust Company, the Central Hanover Bank & Trust Company, the Chase National Bank, the Chemical Bank & Trust Company, the City Bank Farmers Trust Company, and the First National Bank, all of New York; the Northern Trust Company, the Continental Illinois National Bank & Trust Company and the First National Bank, all of Chicago; and the Girard Trust Company of Philadelphia, Pa.

The commission's order, however, stipulated that the banks can be excused from subpoenas providing that qualified officers of each institution file by December 7 in affidavit form the required information as to the amount of Pullman stock held by each bank for individuals.

According to the Justice Department's petition, approximately 575,000 shares of Pullman, Inc., stock are controlled by companies and interests which have "interlocking directors" with railroads in the buying group. It said that "definite proof" of that allegation is not contained in the information it has received from Pullman, Inc., "nor can it be secured except through the subpoenas." The Department of Justice said that it is "informed and believes" that many stockholders of record whose names appear on the list of stockholders of over 999 shares of stock of Pullman, Inc., are not the actual owners of the stock, but are "in fact nominees of the actual owners, and that actual control of the stock for voting purposes lies in companies and interests having interlocking directors with railroads."

R.E.A. Gets Fourth-Section Relief on New Rates

The Interstate Commerce Commission, Division 2, has granted the Railway Express Agency relief from the Interstate Commerce Act's long-and-short-haul clause to the extent necessary to permit establishment of the rate increases authorized by the commission in its Ex Parte 163 report of October 28. The new rates, which are calculated to produce about $58,900,000 in additional annual revenue, have been published in tariffs scheduled to become effective December 13.

Commission to Hold Hearing on Furlough Fares Dec. 11

The Interstate Commerce Commission on November 29 suspended from December 1 to January 30, 1947, the operation of schedules filed by railroads and motor carriers proposing to cancel furlough fares for military personnel in the territory generally east of the Mississippi River (see *Railway Age* for November 16, page 852) and assigned the proceedings, I. & S. Dockets Nos. 5444 and M-2708, for hearing on December 11 before Examiner Fuller at its Washington, D. C., offices.

The suspension order followed by several days a petition submitted to the commission by the War and Navy Departments and the United States Coast Guard in which is was asserted that cancellation of the round trip furlough rates would be "neither just nor equitable" and would be "inimicable to the public interest." The petition added that the increases in rates which would result from the cancellation of the furlough tariffs would be "unjust and unreasonable, in violation of the Interstate Commerce Act, and . . . unlawful." The furlough rates have been in effect since December 14, 1940.

The petition also discussed the memorandum of reasons advanced by the rail carriers for the cancellation of the furlough fares, noting that it stated that the fares were established at the request of the armed forces and that it has never been the carriers' practice to grant such reduced rates except during war periods.

"It also stated," the petition continued, "that following World War I the furlough fares in effect at that time were cancelled 474 days after Armistice Day and that the proposed cancellation of such rates at the present time will be approximately the same length of time after V-J Day as was the case after Armistice Day. It is stated that furlough fares are on an extremely low basis and that because of the increase in expenses and decline in passenger revenues, the carriers can lo longer justify the continuance of these special fares. The carriers in the area west of that covered by the subject tariffs and supplements and the Central of Georgia, the Gulf, Mobile & Ohio, the Illinois Central and the St. Louis-San Francisco railroads are voluntarily continuing the furlough fares in effect."

Contending further that the cancellation of the furlough fares would seriously hinder the current recruiting programs of the armed forces, the petitioners also stated that it has been their assumption that the furlough fares would continue in effect "at least until an official declaration of the war has been promulgated and, preferably, for the six-months' period thereafter," which they said would be consonant with the many statutes and regulations of an emergency nature effected during the war-time period. They declared that the action of the carriers therefore was not in conformity with their practice to maintain such reduced fares "except during war-time periods."

The petitioners also said that the furlough rates have encouraged round-trip travel to and from military and naval establishments, many of which, they added, are located at points which have not and would not initiate any appreciable passenger traffic were it not for the presence of members of the armed forces.

Negro Says Seaboard Refused Him Dining Car Service

Luther P. Jackson, a negro, who lists his address as Virginia State College, Ettrick, Va., has filed with the Interstate Commerce Commission a complaint in which he charges that the Seaboard Air Line violated the Constitution of the United States and Sections 1(5), 2 and 3(1) of the Interstate Commerce Act by refusing to serve him in its dining cars on December 6 and 7, 1944.

Jackson, who claims he has been "injured to the extent of $5,000" as a result of the incidents, said that he traveled on a first-class ticket from Petersburg, Va., to Atlanta, Ga., via the Seaboard on December 6 and was refused service in the diner. On December 7, according to the complainant, he returned from Atlanta to Petersburg in a Seaboard Coach and again was refused dining car service. Charging that he was denied service because of his color, the complainant said that on both occasions white passengers were being served and that several empty seats were available in the diners.

Equipment and Supplies

LOCOMOTIVES

The WABASH has ordered 2 660-hp. Diesel-electric switching locomotives from the Baldwin Locomotive Works.

The COPPER RANGE has ordered 2 1,000-hp. Diesel-electric switching locomotives from the Baldwin Locomotive Works.

The PENNSYLVANIA has ordered 11 6,000-hp. Diesel-electric passenger locomotives from the Baldwin Locomotive Works and 3 600-hp. Diesel-electric switching locomotives from the American Locomotive Company.

FREIGHT CARS

The KANSAS CITY SOUTHERN is inquiring for 800 50-ton box cars.

The NEW YORK, NEW HAVEN & HARTFORD is inquiring for 500 50-ton or 60-ton box cars, 40½ feet long.

The SOUTH AFRICAN RAILWAYS are inquiring for 1,200 42-ton gondola cars and 220 50-ton ballast cars.

The CHICAGO GREAT WESTERN has ordered 500 50-ton box cars from the Pullman-Standard Car Manufacturing Company.

The CENTRAL OF PENNSYLVANIA has ordered 1,250 50-ton steel-sheathed wood-lined box cars from the American Car & Foundry Company.

PASSENGER CARS

Orders for 4,000 journal bearings to equip the 500 express refrigerator cars, the ordering of which by the Railway Express Agency was reported in the November 23 *Railway Age*, page 903, have been placed with the Timken Roller Bearing Company. The bearings are of the Quad type.

IRON AND STEEL

The ATLANTIC COAST LINE has ordered 30,000 net tons of rails from the Tennessee Coal, Iron & Railroad Co. and 13,000 net tons from the Bethlehem Steel Company.

The BANGOR & AROOSTOOK has ordered 5,455 net tons of rails from the Bethlehem Steel Company and 600 net tons from the Carnegie-Illinois Steel Corporation.

SIGNALING

The DELAWARE, LACKAWANNA & WESTERN has placed an order with the Union Switch & Signal Co., for the signal material required for the installation of a centralized traffic control system on six miles of single-track line between Shenango Bridge, N. Y., and Shenango Forks, with a Style-C control machine located at Binghamton, N. Y. The order includes Style R-2 color-light high signals and Style N-2 dwarf signals, M-22B electric switch movements, SL-6 electric switch locks, control machine, code equipment, relays and transformers. Railroad forces will handle the construction.

The ELECTRO-MOTIVE DIVISION of the General Motors Corporation has ordered 21 sets of intermittent-inductive train-control equipment from the General Railway Signal Company. Fourteen of these sets are for freight Diesel-electric locomotives for the Southern, and seven are for freight Diesel-electric locomotives for the Baltimore & Ohio.

The UNION RAILROAD has placed an order with the Union Switch & Signal Co., for the installation of single-station code remote control of an electro-pneumatic interlocking at Curry Hollow, Pa., from BR Tower at Clairton Junction, Pa. The signal materials include a B60 control machine, A-21 electro-pneumatic switch layouts, position-light high and dwarf signals, coding equipment, relays transformers, rectifiers and housings.

Supply Trade

Joseph T. Ryerson & Son, Inc. has announced the completion of a new office building at its Pittsburgh, Pa., steel service plant.

J. W. Hoover has been appointed general traffic manager of **Carnegie-Illinois Steel Corporation**, with headquarters at Pittsburgh, Pa., succeeding **C. W. Trust**, who has retired.

Emmett W. Hines, formerly manager of the Buffalo, N. Y., zone, has been appointed manager of the New York zone of the **Otis Elevator Company**, to succeed **George A. Mount**, who has retired after 34 years' service.

Joseph J. Murphy, whose appointment as manager of sales, **MacLean-Fogg Lock Nut Company**, Chicago, was reported in

Joseph J. Murphy

the *Railway Age* of November 23, was born at Chicago in 1904, and received his elementary education in that city. Mr. Murphy was graduated from Dartmouth college in 1925, and served 10 years in the investment business before entering railway sales work. He joined MacLean-Fogg in 1943 as sales representative at Chicago.

R. C. Todd, G. F. Ahlbrandt and **Anson Hayes** have been elected vice-presidents of the **American Rolling Mill Company.** Mr. Todd and Mr. Ahlbrandt were formerly assistant vice-presidents of the company and Mr. Hayes served as director of research since 1929.

Robert Walsh has been placed in charge of the newly established automotive and export section at the Wilmington, Del., plant of the **American Car & Foundry Co.** The section will specialize in the design and engineering of self-propelled cars for single and multiple operation, for both the foreign and domestic field.

Born in Manchester, England, Mr. Walsh came to the United States in January, 1925, and entered the locomotive engineering department of the General Electric Company in March, 1926. As designing engineer, he worked on the design of main line loco-

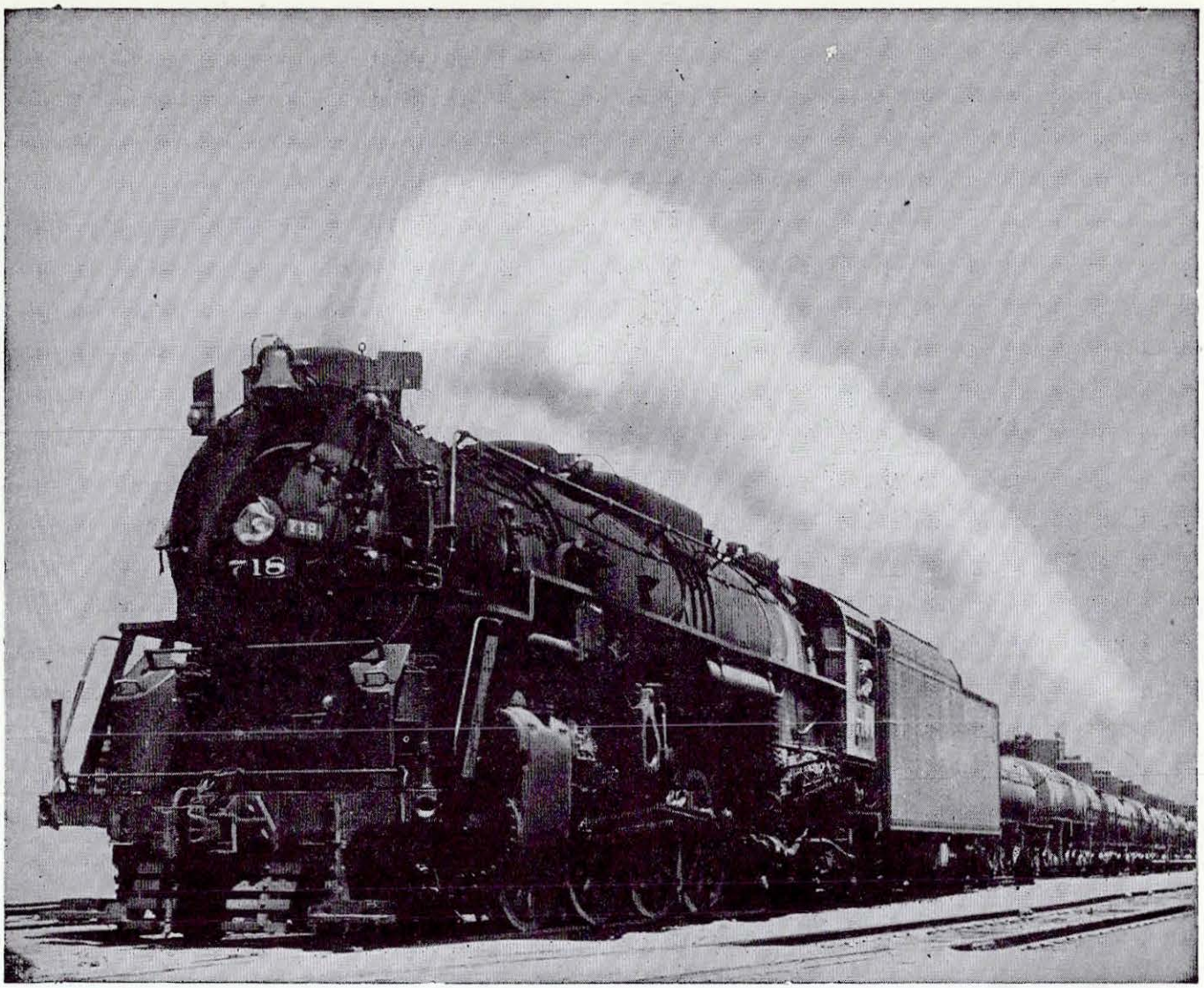
Robert Walsh

motives for the Pennsylvania, the New York, New Haven & Hartford, the New York Central, the Great Northern, and the Virginian. In 1934 and 1935 he was sent to Europe by General Electric to investigate new transportation developments and to coordinate the design and construction of multiple-unit cars for the electrification of the Rand division of the South African Railways. Mr. Walsh remained with General Electric until this year when he joined American Car & Foundry.

John B. Caldwell has been appointed chief engineer of the **Blackmer Pump Company,** Grand Rapids, Mich., and **L. R. DeWolf** and **V. A. Brunson** have been appointed senior engineers, as part of an expansion program in the engineering department for development work on rotary pumps.

Shakeproof, Inc., a division of the **Illinois Tool Works,** has announced the following personnel changes: **Eugene W. Fuller** has been appointed manager of the division. **B. F. Bales,** formerly assistant sales manager, succeeds Mr. Fuller as sales manager. **Russell H. Maude** has been appointed sales manager of the Detroit (Mich.) district, to succeed **John B. O'Connor,** who has replaced **Walter M. Hanneman** as chief engineer. Mr. Hanne-

News Department continued on next left-hand page



Nickel Plate 2-8-4 built by Lima

Today's Speed will be SLOW tomorrow!

AMERICAN business calls continuously for faster and faster deliveries. To meet this insistent demand, the railroads require motive power capable of hauling heavier trains at higher sustained speeds.

Lima is meeting this need by building steam locomotives that move heavy freight traffic at passenger train speed, with maximum efficiency and economy.

LIMA LOCOMOTIVE WORKS LIMA LOCOMOTIVE WORKS INCORPORATED INCORPORATED, LIMA OHIO

man has joined the SEMS License division as chief engineer.

Gilbert E. Collyer has been appointed district manager of the Detroit, Mich., office of **H. K. Porter Company.** Mr. Collyer was formerly in the company's general sales office at Pittsburgh, Pa., where he specialized in equipment for the processing industries, locomotives, railway specialties and springs.

Carl A. Ilgenfritz has been elected vice-president of purchases of the **United States Steel Corporation of Delaware,** with headquarters at Pittsburgh, Pa., to succeed **Charles R. Miller, Jr.,** who has retired after 49 years of service. Since September, 1945, Mr. Ilgenfritz has been vice-president in charge of purchases of the Carnegie-Illinois Steel Corporation, at Pittsburgh.

Dr. C. Earl Webb, western division engineer of the **American Bridge Company** (a subsidiary of the United States Steel Corporation), at Chicago, has been appointed chief engineer, with headquarters at Pittsburgh, Pa., succeeding **Dr. Charles F. Goodrich,** who has retired after 40 years of service with the company. **Albert P. Boysen,** engineer in charge of design at Chicago, succeeds Dr. Webb as western division engineer at Chicago.

James G. Lyne has been appointed to the new office of assistant to chairman of the **Simmons-Boardman Publishing Corporation** with such authority and duties as the chairman shall give him. He will continue as heretofore to be vice-president of the corporation and assistant to the editor of *Railway Age.* Mr. Lyne was born at St. Louis, Mo., on July 10, 1898. He grew up at Herington, Kans., where his father was a conductor on the Chicago, Rock Island & Pacific. He was educated at the University of Kansas (A. B. 1920) and New York University (Ph.D. 1946). He entered railway service in 1914 as a laborer in the car department of the Rock Island at Herington and served for fifteen months in that capacity, and as material clerk, timekeeper, file clerk, and M.C.B. clerk. He worked during summer vacations when at college for the Rock Island as extra gang timekeeper, rodman, ballast inspector and extra clerk in the office of the superintendent at Herington and in the general roundhouse foreman's office at Kansas City, Kans. He was a special agent of the Bureau of Labor Statistics, Washington, D. C., 1919-1920, and a reporter on the New York Daily News in 1920. He was an associate editor of *Railway Age* 1920-1928, financial editor 1928-1938, has been assistant to the editor of *Railway Age* since 1938, and vice-president and director of the Simmons-Boardman Publishing Corporation since 1943.

OBITUARY

C. D. Young, sales manager, welding division, Metal & Thermit Corp., New York, died on November 16 at the Orange Memorial Hospital, Orange, N. J.

Herbert W. Young, founder and president of the Delta-Star Electric Company, Chicago, died in that city on November 25. He was 70 years old.

Financial

ALABAMA GREAT SOUTHERN.—*Changed Dividend.*—This road has declared dividends of $1.50 a share on the ordinary stock and $1.50 a share on the 6 per cent preferred stock, both payable on December 24 to stockholders of record on December 5. The only other payment this year on each class of stock was $3.50 on June 27. Dividends totaling $9 a share were paid on both stocks in 1945.

ALTON.—*New Reorganization Managers.*—A new set of reorganization managers was appointed for this road on November 27 by Federal Judge John P. Barnes at Chicago. He stated in the appointment order that the previous group of managers, with the exception of one member, had failed to give assurance that the reorganization plan would be carried out with "proper and necessary expedition." He had approved their appointment on November 15 and dismissed them on November 22. The road's first reorganization directors proposed in October were ruled out by Judge Barnes because they were not residents of the territory served by the Alton. The latest appointees, all attorneys, are: Claude A. Roth, former trustee for the Chicago & North Western; William T. Faricy, vice-president and general counsel of the Chicago & North Western; and John E. Gavin, a member of the second group of managers, who was reappointed. A protest against Judge Barnes' recent orders, including that which vacated and suspended the order approving the second group of managers, was voiced in a notice of appeal filed by the bondholders protective committee of the 3 per cent refunding mortgage bonds of the Chicago & Alton. The reorganization plan calls for the acquisition of the Alton by the Gulf, Mobile & Ohio (see *Railway Age,* October 26, page 704).

ATCHISON, TOPEKA & SANTA FE.—*New Director.*—Thomas S. Lamont, a vice-president and director of J. P. Morgan & Company, New York, has been elected a director of this road.

ATLANTIC & EAST CAROLINA.—*Note*—Division 4 of the Interstate Commerce Commission has authorized this road to issue and to renew from time to time at par a secured demand promissory note for not exceeding $100,000. The note will evidence loans obtained from time to time from the First-Citizens Bank & Trust Company, Kinston, N. C. It will bear interest at the rate of 3 per cent a year and will be secured by an assignment to the bank of bills for freight and passenger service due the A. & E. C. from the federal government. The commission stipulated that the last issue or renewal of the note cannot be later than 2 years from the date of its order—November 18. (Previous item in *Railway Age* of November 9, page 778.)

BANGOR & AROOSTOOK.—*Promissory Notes.*—Division 4 of the Interstate Commerce Commission has authorized this road to issue $332,000 in promissory notes to further evidence the indebtedness it will assume under a conditional sales agreement by which it plans to purchase 100 50-ton, all-steel, two-way discharge rack cars at $4,167 each from the Magor Car Corporation. The notes have been sold to the Worcester County Trust Company, Worcester, Mass., at par with an interest rate of 1.72 per cent, and will be payable in 20 consecutive equal quarterly installments.

BESSEMER & LAKE ERIE.—*Bonds of Pittsburg, Bessemer & Lake Erie.*—This road and its lessor, the Pittsburg, Bessemer & Lake Erie, have applied to the Interstate Commerce Commission for authority for the latter to issue $12,000,000 of series A, first mortgage bonds for which the former would assume liability as to principal, interest, and sinking fund requirements. The bonds would be sold on the basis of competitive bids with the interest rate determined by such bids, and proceeds of the issue, which would be dated December 1 and mature December 1, 1996, would be used (1) to pay at maturity on January 1, 1947, $9,930,000 of P.B.&L.E. consolidated first mortgage 5 per cent 50-year gold bonds; (2) to reimburse the B.&L.E. for $70,000 advanced to the P.B.&L.E. to pay off on July 1, 1943, underlying bonds of the Pittsburg, Shenango & Lake Erie; and (3) to pay a $2,000,000 promissory note issued in 1919 by the P.B.&L.E. to the B.&L.E. which at that time provided funds to retire a maturing issue of P.B.&L.E. 5 per cent gold debenture bonds. (See also page 580.)

CARBON COUNTY. — *Acquisition.* — This road has applied to the Interstate Commerce Commission for authority to extend its line through the purchase of 5.8-mile line from Columbia, Utah, to the Geneva coal mine. The applicant would acquire the line, which was built by the Defense Plant Corporation, from the Geneva Steel Company, which has contracted to purchase it from the War Assets Administration.

CHICAGO, BURLINGTON & QUINCY.—*Promissory Notes.*—Upon request of the applicant, Division 4 of the Interstate Commerce Commission has modified its order of July 17 in the Finance Docket No. 15367 proceeding, thereby reducing from $2,020,480 to $1,998,831 the amount of 1.5 per cent promissory notes this road is authorized to issue to further evidence the indebtedness it will assume under a conditional sales agreement by which it plans to acquire 28 Diesel-electric switching locomotives from the Electro-Motive Division of the General Motors Corporation at an estimated aggregate cost of $2,525,600, subject to increase.

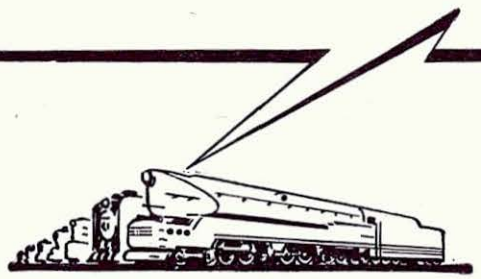
CINCINNATI, NEW ORLEANS & TEXAS PACIFIC.—*Changed Dividend.*—This road has declared a dividend of $2 a share on the common stock, payable on December 18 to stockholders of record on December 6. The only other payment this year was $3 on June 24. Dividends totaling $7 a share were paid last year.

CHICAGO, INDIANAPOLIS & LOUISVILLE.—*Reorganization Expenses.* — Division 4 of the Interstate Commerce Commission has approved maximum limits of allowances for compensation and expenses in connection with this road's reorganization proceedings from February 15, 1944, and the final termination of the proceedings. The largest amount involved was $35,000 al-

News Department continued on next left-hand page

Measure first cost of new locomotives

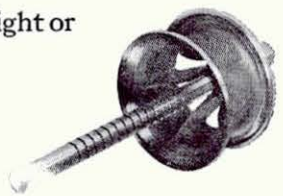
IN TERMS OF HORSEPOWER



THE day is past when weight and size alone measured a locomotive's ability to perform. Today it is horsepower — horsepower at operating speeds, whether freight or passenger.

The maximum horsepower will be obtained from a steam locomotive of any given design only when that locomotive is equipped with the Franklin System of Steam Distribution. Without increasing size or fuel consumption, this system will increase power by 19 to 30 per cent at operating speed — and is the only means by which this increase can be obtained. Cost, measured in horsepower, will be substantially lowered.

Application of the Franklin System of Steam Distribution, using poppet valves, is practical — to either new or existing locomotives — for either freight or passenger service.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO • MONTREAL

STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

lowed on a claim of $47,500 by Arthur T. Leonard, John E. Dwyer and John W. Barriger, III, the road's reorganization managers, for services rendered by their counsel, Harold A. Smith, of Winston Strawn & Shaw of Chicago, and Walter H. Brown, Jr., a member of the firm of Willkie, Owen, Otis, Farr & Gallagher of New York.

Among other claimants and the amounts approved for them included Willkie, Owen, Otis, Farr & Gallagher and Pope & Ballard, counsel for a protective committee for the road's refunding-mortgage bonds, $12,000 and $5,000, respectively, on claims of $16,200 and $9,50, respectively, in addition to $5,143 for expenses, and Hunt, Hill & Betts, counsel for the first and general mortgage committee, $7,000 on a claim of $18,750.

GEORGIA.—*Promissory Note.*—This road has applied to the Interstate Commerce Commission for authority to borrow $900,000 from the Fulton National Bank, Atlanta, Ga., to which it will deliver a promissory note in the same principal amount plus accrued interest. Proceeds of the note, together with other funds of the applicant, will be used to pay off $944,000 par value of the applicant's 4 per cent debentures, due January 1, 1947. A total of $1,000,000 of debentures was issued and $56,000 have been paid and cancelled. The note, to be secured by the $944,000 in debentures, will be payable in installments of $40,000 each on January 1 of each year from 1948 to 1951, inclusive, with the balance to be paid not later than October 1, 1951. The note will bear interest at the rate of 1.75 per cent in 1948, increasing yearly to 2.15 per cent in 1951.

NEW YORK CENTRAL.—*Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for authority to assume liability for $20,000,000 of equipment trust certificates, the proceeds of which will be applied toward the payment of an estimated $27,261,000 for the following equipment which the applicant intends to purchase:

	Description and Builder	Estimated Unit-Price
4	1,500-hp. Diesel-electric Locomotives, road freight, A units (American Locomotive Company)	$155,000
2	1,500-hp. Diesel-electric locomotives, road freight, B units (American)	139,000
18	1,500-hp. Diesel-electric locomotives, road freight, A units (Electro-Motive Division, General Motors Corporation)	158,000
10	1,500-hp. Diesel-electric locomotives, road freight, B units (Electro-Motive)	142,000
4	1,500-hp. Diesel-electric locomotives, road combination passenger and freight, A units (Baldwin Locomotive Works)	156,000
2	1,500-hp. Diesel-electric locomotives, road combination passenger and freight, B units (Baldwin)	145,000
4	1,500-hp. Diesel-electric locomotives, road combination passenger and freight, A units (Electro-Motive)	161,000
2	1,500-hp. Diesel-electric locomotives, road combination passenger and freight, B units (Electro-Motive)	146,000
16	2,000-hp. Diesel-electric road passenger locomotives, A units (Electro-Motive)	208,000
4	2,000-hp. Diesel-electric road passenger locomotives, B units (Electro-Motive)	190.000
50	high-tensile, low alloy steel baggage cars (American Car & Foundry Co.)	36,500
2	high-tensile, low alloy steel baggage-mail cars (A. C. F.)	45,000
2	stainless steel baggage-dormitory cars (Budd Company)	89,550
10	stainless steel baggage-dormitory cars (Budd)	80,000
9	high-tensile low alloy steel baggage-dormitory cars (Pullman-Standard Car Manufacturing Company)	68,000
2	aluminum passenger and baggage cars (A.C.F.)	68,000
4	high-tensile low alloy steel railway postoffice cars (A.C.F.)	48,500
9	stainless steel dining cars (Budd)	100,900
3	stainless steel dining cars (Budd)	104,500
7	high-tensile low alloy steel dining cars (Pullman-Standard)	114,000
5	stainless steel full-length dining cars (Budd)	90,500
4	high-tensile low alloy steel full-length dining cars (Pullman-Standard)	78,500
18	stainless steel grill-dining cars (Budd)	98,400
2	high-tensile low alloy steel lounge-barber-secretary cars (Pullman-Standard)	91,000
13	stainless steel parlor-observation cars (Budd)	89,200
13	stainless steel tavern-lounge cars (Budd)	95,000
5	stainless steel kitchen-lounge cars (Budd)	103,000
2	high-tensile low alloy steel kitchen-lounge cars (Pullman-Standard)	106,500
2	high-tensile low alloy steel kitchen-dormitory cars (Pullman-Standard)	116,500
45	high-tensile low alloy steel sleeping cars, 22 single rooms (Pullman-Standard)	94,000

The certificates will be dated January 1, 1947, and will be sold on the basis of competitive bids.

PITTSBURGH, BESSEMER & LAKE ERIE.—*Debt Increase Voted.*—This company's stockholders have authorized a $12,000,000 increase in indebtedness to provide funds for the payment of existing indebtedness. (See the *Railway Age* for September 28, page 541).

ST. LOUIS-SAN FRANCISCO.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has granted John W. Stedman, James H. Brewster, Jr., Frederic W. Ecker and Richard J. Lockwood, reorganization managers for this road. The necessary authority for issuance of securities, assumption of allegations and liabilities, transfer of the property, and other actions required for consummmation of the approved plan of reorganization.

ST. LOUIS-—SAN FRANCSICO.—*Reorganization Expenses.*—Division 4 of the Interstate Commerce Commission has approved $263,453 as the maximum limit of expenses to be incurred by John W. Stedman, James H. Brewster, Jr., Frederic W. Ecker and Richard J. Lockwood as reorganization managers in consummating the plan of reorganization of this road. At the same time, the commission approved $31,546 as the maximum limit of New York Stock Exchange listing fees. The commission's authorization does not include fees and expenses of attorneys for he reorganization managers.

SOUTHERN.—*Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for authority to assume liability for $7,600,000 of series "MM" equipment trust certificates to finance approximately 80 per cent of the cost of equipment which it plans to acquire. The equipment includes 600 all-steel 50-ton low side gondolas, at $3,086 each, from the Pressed Steel Car Company; 150 all-steel 70-ton covered hoppers, at $4,819 each, from Harlan & Hollingsworth Corporation; 100 all-steel 70-ton ballast cars, at $4,702 each, from the American Car & Foundry Company; 269 steel-sheathed 50-ton box cars, at $3,650 each, from the Pullman-Standard Car Manufacturing Company; and 10 6,000-hp. Diesel-electric road freight locomotives, at $556,800 each, from the Electro-Motive Division of General Motors Corporation. The certificates would be sold on the basis of competitive bids with the interest rate named in such bids.

Average Prices Stocks and Bonds

	Dec. 3	Last week	Last year
Average price of 20 representative railway stocks	49.23	48.78	63.22
Average price of 20 representative railway bonds	89.76	89.49	100.27

Dividends Declared

Alabama Great Southern.—ordinary, $1.50; 6% participating preferred, $1.50; both payable December 24 to holders of record December 5.

Atchison, Topeka & Santa Fe.—common, $1.50, payable March 3 to holders of record January 31; 5% non-cum. preferred, $2.50, semi-annually, payable February 2 to holders of record December 27.

Chicago, Burlington & Quincy.—$3.00, payable December 24 to holders of record December 12.

Cincinnati, New Orleans & Texas Pacific.—common, $2, payable December 18 to holders of record December 6; 5% preferred, $1.25, quarterly, payable March 1 to holders of record February 15; 5% preferred, $1.25, quarterly, payable June 2 to holders of record May 15; 5% preferred, $1.25, quarterly, payable September 2 to holders of record August 15; 5% preferred, $1.25, quarterly, payable December 1 to holders of record November 15.

Pittsburgh, Ft. Worth & Chicago.—$1.75, quarterly, payable January 2 to holders of record December 10; preferred, $1.75, quarterly, payable January 7 to holders of record December 10.

Reading.—2nd preferred, 50¢, quarterly, payable January 9 to holders of record December 19.

Ware River.—guaranteed, $3.50, semi-annually, payable January 2 to holders of record December 20.

Construction

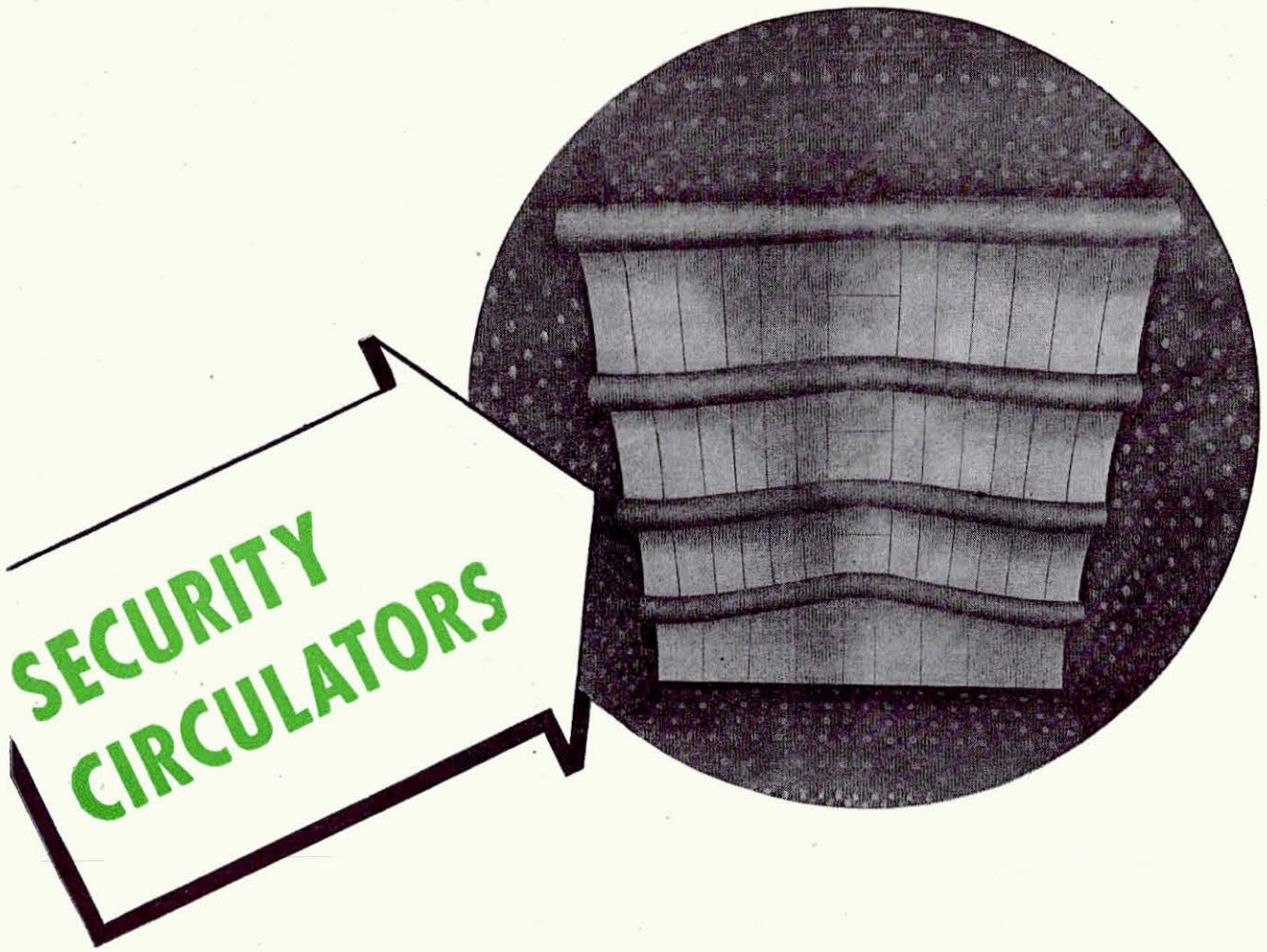
ATLANTIC COAST LINE.—This road has authorized the following projects, the probable costs of which are shown in parentheses: Improvement of facilities for Diesel-electric locomotives at the Waycross (Ga.) shops ($47,175); work on a 271-ft. double track concrete slab bridge at Rantowles creek, S. C. ($63,320); replacing elevators in an office building at Wilmington, N. C. ($59,203); adding to the wharf facilities ($31,680) and laying additional tracks at Jacksonville, Fla., ($31,533); additional tracks at Pelham, Ala. ($21,082) and at Tyrone, Ga. ($36,050); and improving track facilities at Pelham, Ga. ($119,535).

BALTIMORE & OHIO.—This road has awarded the following contracts, the estimated costs of which are shown in parentheses: To Vogt & Conant, Cleveland, Ohio, for the construction of superstructures on bridge 574 at Crawford, W. Va., bridges 587, 589 and 594 at Walkersville, bridge 595 at Emmart and bridge 691 at Orlando ($38,500); to the Bates & Rogers Construction Corp., Chicago, for work including excavation and masonry on bridge 442 at Adrian, W. Va. ($38,000); to the W. M. Brode Company, Newcomerstown, Ohio, for reconstructing bridge 42/59 at Madison Mills, Ohio ($29,000); and to the Steiner Construction Company, Baltimore, Md., for constructing a freight transfer platform at the Wicomico street yard in Baltimore ($20,000).

FLORIDA EAST COAST.—This road has awarded a contract to the Western Waterproofing Company, Atlanta, Ga., for the rehabilitation of general office buildings at St. Augustine, Fla. The estimated cost of this project is $32,000.

READING.—This road has awarded contracts for the following projects, the esti-

News Department continued on next left-hand page



PROLONG THE LIFE OF ARCH BRICK

When Security Circulators were first developed it was for the specific purpose of providing effective support for a 100% brick arch. And experience has proved that the use of Security Circulators greatly prolongs the life of arch brick.

Other important advantages, however, result from the installation of Security Circulators, since they minimize honeycombing, flue plugging and cinder cutting, thus definitely reducing boiler maintenance. They also insure a positive flow of water over the center of the crown sheet.

AMERICAN ARCH COMPANY, INC.

NEW YORK • CHICAGO

SECURITY CIRCULATOR DIVISION

mated costs of which are shown in parentheses: To the Harry F. Ortlip Company, Philadelphia, Pa., for electric lighting and power installation in an enginehouse extension at Rutherford, Pa. ($30,000); to William G. Shaner & Sons, Philadelphia, for the construction of yard tracks at Wayne Junction, Philadelphia ($25,000); to the Construction Service Company, Elizabeth, N. J., for the construction of track to the Public Service Gas & Electric Co. plant at Port Reading, N. J. ($25,000); and to the Beidler & Son Engineering Co., Reading, Pa., for the installation of a steam heating system in an enginehouse at Rutherford ($20,000).

Abandonments

ATCHISON, TOPEKA & SANTA FE.—This road has applied to the Interstate Commerce Commission for authority to abandon a 4.6-mile portion of its line from a point near Rockvale, Colo., to a point near Kenwood.

SOUTHERN.—This road has applied to the Interstate Commerce Commission to abandon a 50-mile line (which is virtually all of its so-called Rome-Gadsden branch) extending from a point near Rome, Ga., to a point near Gadsden, Ala.

Railway Officers

EXECUTIVE

J. Wendell Smith has been elected president of the Barre & Chelsea, with headquarters at Montpelier, Vt., to succeed **Alvin F. Sortwell,** whose death on July 17 was reported in the *Railway Age* of July 27.

Luther A. Thomas, assistant to vice-president (investigation and police) of the Southern system at Washington, D. C., has been promoted to the newly-created position of assistant vice-president, special service and freight claims, with the same headquarters.

Leslie H. Woodall, assistant to vice-president in charge of freight claims of the Southern at Chattanooga, Tenn., retired on December 1 after more than 47 years of service with that road. Mr. Woodall was born on October 11, 1881, at Woodville, Ala., and after attending Alabama Agricultural College, he entered the service of the Southern as a telegrapher at Memphis, Tenn., in March, 1899. He subsequently served in various positions in the operating department, being appointed superintendent of terminals at Jacksonville, Fla., in May, 1920. Mr. Woodall later served as superintendent at Sheffield, Ala., Somerset, Ky., and Greensboro, N. C., being promoted to general superintendent at Birmingham, Ala., in February, 1934. In August, 1934, he was appointed assistant general manager at Birmingham and later served in that capacity at St. Louis, Mo. He was promoted to assistant to vice-president at Chattanooga in October, 1937, the position he held until his retirement.

John C. Platt, whose election as president of the Mississippi Central was reported in the *Railway Age* of November 16, was born in Cold-Spring-on-Hudson,

John C. Platt

N. Y. He entered the employ of the Scranton Lackawanna Trust Company, Scranton, Pa., on July 1, 1928, as assistant treasurer in charge of trust investments, subsequently advancing through various positions until March 17, 1942, when he was elected president of that company, of which he is also a director. In addition to holding the positions of president of the Mississippi Central and of the Scranton Lackawanna Trust Company, Mr. Platt is president and a director of the United States Lumber Company, the J. J. Newman Lumber Company, and of the Garcia Lands Company. He is also a director of the First National Bank of Scranton (Pa.), the Cherry River Boom & Lumber Co., the Elk Lick Coal Company and the Richwood Store Company, and is a member of the Pennsylvania State Chamber of Commerce, Committee on Banks and Banking.

FINANCIAL, LEGAL AND ACCOUNTING

Hewitt Biaett has been appointed a general attorney of the Chesapeake & Ohio, the Pere Marquette and the New York, Chicago & St. Louis, with headquarters at Richmond, Va.

Edward V. Ingels, assistant controller of the Southern Pacific, with headquarters at New York, has retired at his own request, under the pension rules of the company, after more than 33 years of service with that road. Mr. Ingels was born at Nevada, Mo., on April 3, 1878, and entered railroad service in August, 1898, at Kansas City, Mo., as assistant bookkeeper in the auditor's office of the Kansas City, Pittsburg & Gulf (now Kansas City Southern). During the time the latter company was controlled by the late E. H. Harriman, Mr. Ingels served successively as general bookkeeper, general clerk, chief clerk to auditor and auditor of disbursements. Shortly after control of the Kansas City Southern was returned to Dutch interests in 1905, Mr. Ingels was appointed auditor of the Pickering Lumber Company at Kansas City and also of that company's Louisiana Central railway, which positions he held until September, 1913, when he entered the service of the Southern Pacific at New York as special accountant in the controller's office. He was appointed chief clerk in October, 1917, and in June, 1925, he was transferred to the vice-chairman's office as head statistician. In October, 1928, Mr. Ingels was appointed assistant controller, the position he held until his retirement.

OPERATING

Robert E. Godley has been appointed supervisor of scrap and reclamation of the Illinois Central, with headquarters at Chicago. He succeeds **W. P. Stewart,** whose retirement following 43 years of railroad service was reported in the *Railway Age* of November 30.

C. A. Bradshaw, whose promotion to assistant general manager of the Louisville & Nashville, with headquarters at Louisville, Ky., was reported in the *Railway Age* of November 9, began his railroad career with the L. & N. in 1899 as a stenographer-clerk in the roadmaster's office at Columbia,

C. A. Bradshaw

Tenn. He subsequently served in various stenographic positions at Louisville until his appointment in 1905 as secretary to the fourth vice-president. In 1917 he was advanced to assistant trainmaster, Cincinnati terminals, which position he held until 1919, when he became inspector of transportation. Mr. Bradshaw was promoted to assistant to general manager in 1937, which position he held at the time of his recent advancement.

S. O. Rentschler, superintendent of motive power of the Elgin, Joliet & Eastern at Joliet, Ill., has been advanced to general manager, with headquarters at Chicago, a new position.

George T. Lane, captain, investigation and police of the Southern at Birmingham, Ala., has been promoted to the newly-created position of superintendent, special service, with headquarters at Washington, D. C. **I. Holmes Crabill,** general supervisor, investigation and police at Washington, D. C., has been promoted to the newly-created position of superintendent, claim

News Department continued on next left-hand page

Keep Flues Clean

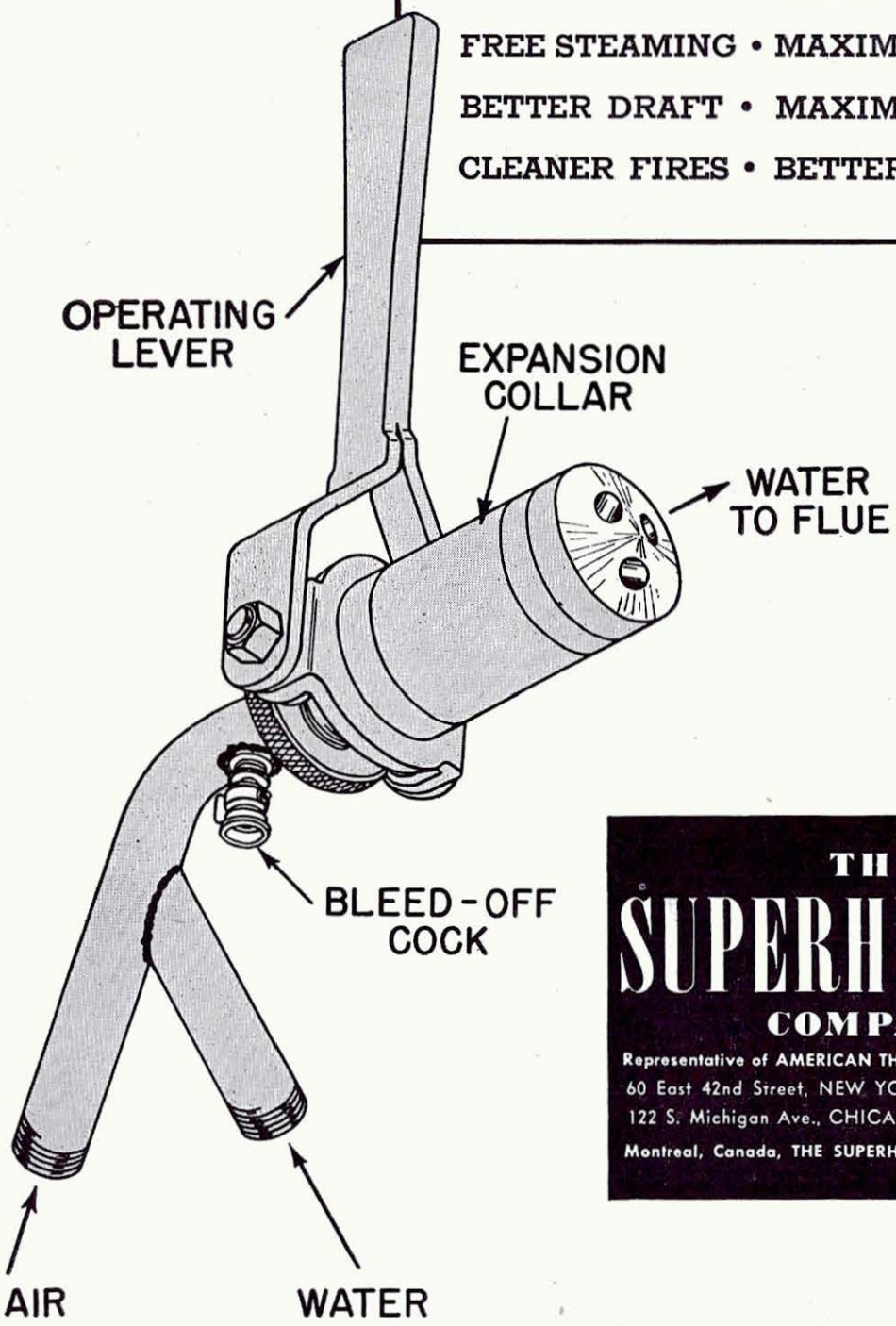
Wash them Systematically

FOR

FREE STEAMING • MAXIMUM EVAPORATION

BETTER DRAFT • MAXIMUM SUPERHEAT

CLEANER FIRES • BETTER COMBUSTION



THE SUPERHEATER COMPANY

Representative of AMERICAN THROTTLE COMPANY, INC.

60 East 42nd Street, NEW YORK

122 S. Michigan Ave., CHICAGO

Montreal, Canada, THE SUPERHEATER COMPANY, LTD.

This tool is used successfully by many railroads.

A-1830(C-631)

Superheaters • Superheater Pyrometers • Exhaust Steam Injectors • Steam Dryers • Feedwater Heaters • American Throttles

prevention, loss and damage, with the same headquarters.

J. Arthur Loutzenhiser, whose appointment as superintendent of the Bessemer & Lake Erie at Greenville, Pa., was announced in the *Railway Age* of October 5, was born on May 11, 1895, at Greenville. Entering railroad service as yard fireman on the Bessemer & Lake Erie on June 17, 1916, Mr. Loutzenhiser became engineman on November 13, 1920; yardmaster on February 15, 1937; assistant trainmaster on May 1, 1939, and trainmaster on August 1, 1940. He was appointed assistant superintendent at Greenville on February 1, 1942, and served in that capacity until his promotion to superintendent at Greenville, effective October 1.

Willis L. Morneweck, whose appointment as general superintendent of the Bessemer & Lake Erie at Greenville, Pa., was announced in the *Railway Age* of October 5, was born at Greenville on February 5, 1892. Mr. Morneweck entered railroad service with the Bessemer & Lake Erie as messenger and train crew caller on December 6, 1906, becoming telegraph operator on April 13, 1910, train dispatcher on December 25, 1916, assistant trainmaser on April 8, 1935, and trainmaster on May 15, 1936. Mr. Morneweck was appointed assistant superintendent at Greenville on May 1, 1939, and became superintendent there on February 1, 1940, which position he held until his recent promotion to general superintendent at Greensville, effective October 1.

TRAFFIC

Robert G. Williams has been appointed freight traffic agent of the Chicago, Indianapolis & Louisville, with headquarters at Indianapolis, Ind.

Donald B. Powell has been appointed general agent of the Illinois Terminal, with headquarters at Tulsa, Okla., succeeding **G. L. Rush,** who has been granted a leave of absence. **Malcolm A. Harrington** has been appointed general agent at New York.

Ralph L. Andreas, general agent of the Illinois Central, with headquarters at Washington, D. C., has been promoted to general traffic agent in charge of the system's less-than-carload sales and service, with headquarters at Chicago. He succeeds **Philip A. Webb, Jr.,** who has been assigned to special duties. Mr. Andreas is succeeded at Washington by **James E. Gardner.**

A. E. Pfaff, general freight agent of the New York, Chicago & St. Louis, with headquarters at Cleveland, Ohio, has been appointed assistant freight traffic manager, succeeding **William F. Backus,** whose death on October 8 is reported elsewhere in these columns. Mr. Pfaff (generally known as "Bud") began his railroad career as messenger in the general freight department of the New York, Chicago & St. Louis at Cleveland on October 11, 1915, serving in other clerical capacities until May 16, 1917, when he was furloughed into military service in World War I. Following his honorable discharge from the Army he resumed his duties with the Nickel Plate on March 3, 1919. After several promotions Mr. Pfaff was appointed assistant chief clerk on September 16, 1936. He was appointed general agent at Milwaukee, Wis., on January 1, 1938, returning to Cleveland as assistant general freight agent on July 16, 1938. On February 1, 1946, he was appointed general freight agent, holding that position until his recent promotion.

Hoyt D. Sweetin, traffic manager of the St. Louis-San Francisco at Tulsa, Okla., has been transferred to St. Louis, Mo., succeeding **Frank J. Lawler,** who has retired after 52 years of continuous service with the Frisco. **George A. Snyder,** traffic manager at Washington, D. C., has been transferred to Wichita, Kan., relieving **O. P. Rainey,** who in turn has been transferred to Birmingham, Ala., replacing **Carl H. Gray.** Mr. Gray succeeds Mr. Sweetin as traffic manager at Tulsa.

Harvey Allen, whose promotion to freight traffic manager of the Missouri-Kansas-Texas, with headquarters at Dallas, Tex., was reported in the *Railway Age* of November 16, was born on February 28, 1889, at Evansville, Ind. Mr. Allen was graduated from Washington & Lee university in 1907, and in November of that year he entered railway service in the Katy's local freight office at St. Louis, Mo. In 1909 he was transferred to the general office, freight traffic department, where he served until 1918 in various clerical positions, including that of chief clerk. Following service in France during World War I, Mr. Allen returned to the Katy as chief clerk in the general freight office at Dallas. He later served as division freight agent

Harvey Allen

at Oklahoma City, Okla., and as assistant general freight agent at St. Louis prior to his return to Dallas, in 1926, as general freight agent. In 1931 he was transferred to St. Louis, and in 1933 he was promoted to assistant freight traffic manager at Dallas. Mr. Allen held the latter position at the time of his new appointment.

ENGINEERING & SIGNALING

Robert D. Yeargain, district water chemist of the Missouri Pacific at Little Rock, Ark., has been promoted to assistant engineer of water service, with headquarters at Houston, Tex., succeeding **H. M. Hoffmeister,** whose appointment as assistant engineer of tests, with headquarters at St. Louis, Mo., is reported elsewhere in these columns.

W. H. Barnwell, Sr., has been appointed consulting industrial engineer of the Central of Georgia, with headquarters at Atlanta, Ga.

MECHANICAL

H. R. Barclay, assistant general boiler inspector of the Northern Pacific, at St. Paul, Minn., has been promoted to general boiler inspector, with the same headquarters, succeeding **Bernard C. King,** who has retired after 55 years of railroad service, and 40 years with the Northern Pacific.

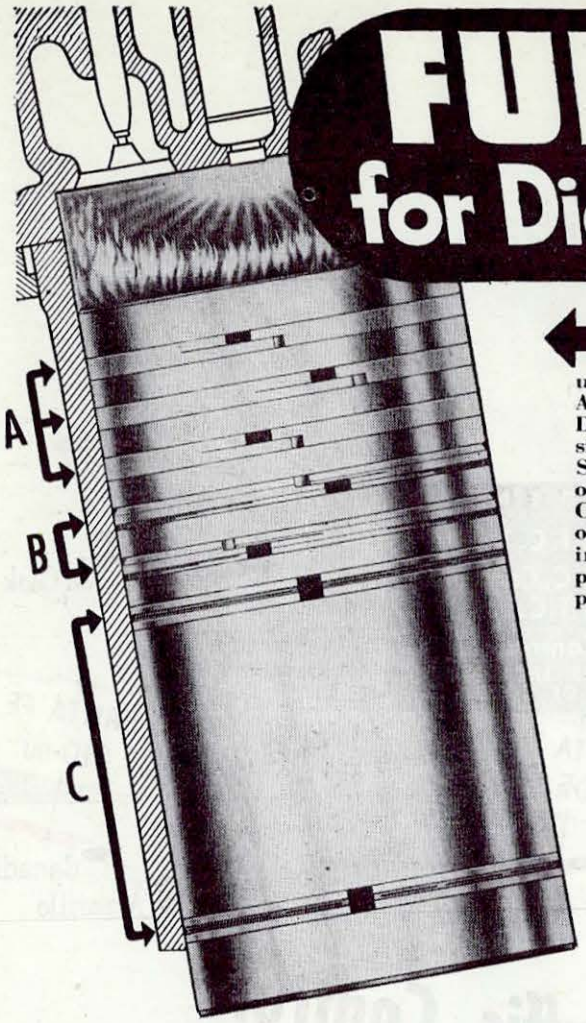
P. H. Verd, master mechanic of the Elgin, Joliet & Eastern at Gary, Ind., has been promoted to superintendent of motive power and equipment, with headquarters at Joliet, Ill. He succeeds to the duties of **S. O. Rentschler,** whose promotion to general manager is reported elsewhere in this issue. Mr. Verd is succeeded by **W. M. Martin,** general foreman at Gary. **W. A. Emerson,** general master car builder, has been appointed superintendent of car department, with headquarters as before at Joliet. **V. G. Small** has been appointed assistant superintendent of car department, and **E. Abraham** has been made assistant to superintendent of motive power and equipment.

H. M. Hoffmeister, assistant engineer of water service of the Missouri Pacific, at Houston, Tex., has been appointed assistant engineer of tests, with headquarters at St. Louis Mo., succeeding **E. C. Meinholtz,** whose appointment as engineer of tests at St. Louis was reported in the *Railway Age* of September 7.

OBITUARY

William F. Backus, assistant freight traffic manager of the New York, Chicago & St. Louis, with headquarters at Cleveland, Ohio, died on October 8, following a brief illness, at the age of 53. Mr. Backus was born on August 29, 1893, at Toledo, Ohio, and entered railroad service as mail clerk for the Toledo, St. Louis & Western (now the Clover Leaf district of the New York, Chicago & St. Louis) on November 3, 1908. He was serving as rate clerk in the same office at Toledo when he resigned on August 1, 1915, to accept an industrial position. He served in the Navy during World War I, and returned to the Clover Leaf at Toledo as rate clerk on April 26, 1920. In February, 1927, he transferred to Cleveland, following consolidation of the Clover Leaf with the Nickel Plate, serving in various rate capacities until September 16, 1936, when he was appointed chief clerk in the general freight department. On May 1, 1938, he was appointed assistant general freight agent and on May 1, 1940, general freight agent. He was promoted to assistant freight traffic manager on February 1, 1946, which position he held at the time of his death.

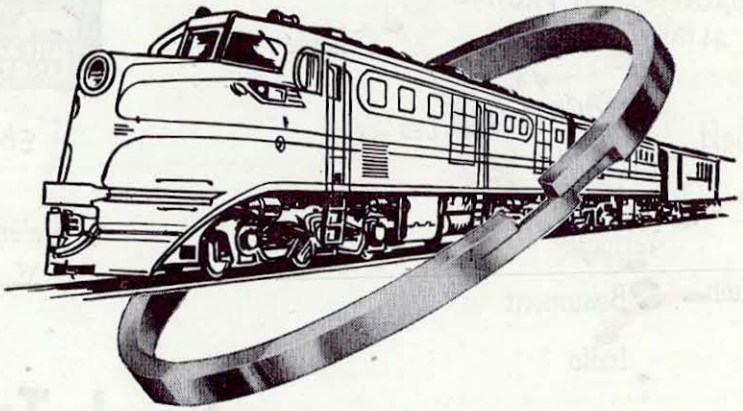
FULL POWER for Diesel Locomotives



A proved combination for a widely used 4-cycle Diesel. A—Hunt Spiller-Double Seal compression rings. B—Hunt Spiller-Double Seal one piece oil rings. C—HS-DS ventilated oil rings. Result: maximum compression; practically no oil pumping or carbon.

with

HUNT-SPILLER DOUBLE SEAL PISTON RINGS



PATENTED DOUBLE SEAL DESIGN

Greater compression and power because there is no blow-by at piston wall or ring groove. Double Seal rings give you these advantages along with all the strength of plain rings. And you are always sure of superior performance because Double Seal rings have had 34 years of rigorous testing in practically every type of Diesel engine.

MADE FROM HSGI CASTINGS

Double Seal rings are precision machined from Hunt-Spiller *Air Furnace* Gun Iron with proper tension *cast* into the rings. Lower ring-to-wall pressure and tough, smooth-finished HSGI mean far less ring and cylinder wear.

FAST SERVICE ON ALL SIZES

With nearly a million rings for practically every purpose in stock at all times, you can always depend upon prompt service. Special rings made to specification within 3 to 14 days. *Address all ring inquiries to Double Seal Ring Co., P. O. Box 566, Fort Worth, Texas.*

"AIR FURNACE PROCESS"
HUNT SPILLER GUN IRON
HSGI
SEALS THE WALL
SEALS THE GROOVE
DOUBLE SEAL RING CO.

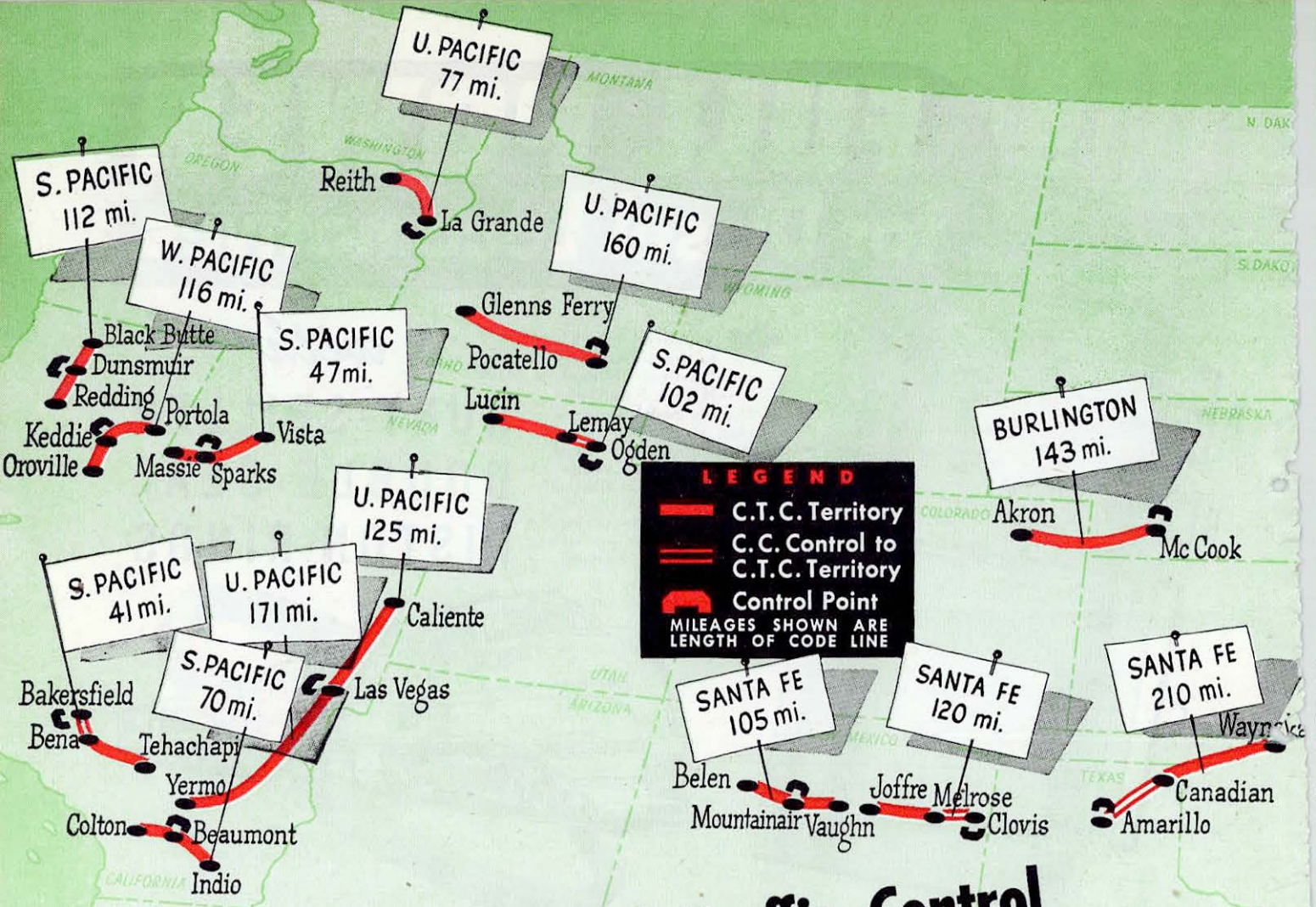
HUNT-SPILLER MFG. CORPORATION

N. C. RAYMOND, *President* — E. J. FULLER, *Vice-Pres. & Gen. Mgr.*

383 Dorchester Ave. ★ South Boston 27, Mass.

Canadian Representative: Joseph Robb & Co., Ltd., 5575 Cote St. Paul Rd., Montreal, P. Q.

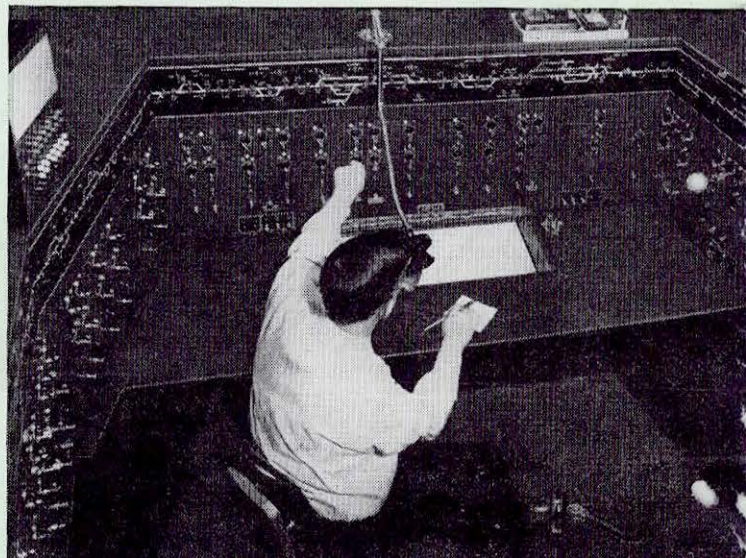
Cylinder Bushings	Crosshead Shoes	Dunbar Sectional Type Packing
Cylinder Packing Rings	Hub Liners	Duplex Sectional Type Packing
Pistons or Piston Bull Rings	Shoes and Wedges	for Cylinders and Valves
Valve Bushings	Floating Rod Bushings	(Duplex Springs for Above
Valve Packing Rings	Light Weight Valves	Sectional Packing)
Valve Bull Rings	Cylinder Liners and Pistons for Diesel Service	Cylinder Snap Rings
		Valve Rings, All Shapes



"UNION" Centralized Traffic Control for any Length of Territory Controlled from any Point

CODED Carrier Control has become another dependable and important element in many "UNION" C. T. C. installations—as evidenced by its use on fourteen railroads in the United States alone. If connected, these installations would stretch clear across this continent and beyond.

Distance is not a factor in the determination of length of territory you wish to control, nor in the selection of a desirable location for the



you Choose

control machine. The control point may be within the limits of the installation, at either end or entirely outside the territory, miles away if desired—wherever you decide it should be from the standpoint of most efficient operation.

"UNION" control systems have been designed to permit assembly of standardized elements to most efficiently and economically do the desired job—whether small or large. Our representatives will gladly explain how they may be used to advantage. Call or write any "UNION" district office.

UNION SWITCH & SIGNAL COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

LIGHT

for
RAILROAD SHOPS
YARDS
ROUNDHOUSES
PITS
TUNNELS
PLATFORMS
STATIONS
OFFICES

Whatever your lighting requirements, Graybar can impartially recommend the exact lighting equipment for your particular needs from the most complete selection of lamps and lighting units available from any one source.

Graybar Lighting Specialists know railroad lighting from power supply to lamps — from cars to yards — and have the specialized technical knowledge to give you expert help in modernizing the lighting of your railroad. Our nation-wide warehousing system speeds delivery of available lighting units, wiring supplies, transformers, controls, and G-E lamps.

If you haven't seen the recently issued bulletin on railroad lighting, ask your Graybar Representative to show you a copy.

The Graybar Railroad Department also provides the nation's railroads with pole-line supplies, communication apparatus, and electrical repair-shop supplies. May we show you the advantages of Graybar service? *Graybar Electric Company. Executive offices: Graybar Building, New York 17, N. Y.* 4637

OFFICES AND WAREHOUSES IN OVER 90 PRINCIPAL CITIES

NEWS DEPARTMENT

(Continued from page 970)

Rail Editors Elect Officers

Marc Green, editor of the Milwaukee Magazine, published by the Chicago, Milwaukee, St. Paul & Pacific, at Chicago, was elected president of the American Railway Magazine Editors Association at its convention on November 14-15 at the Edgewater Gulf hotel, near Biloxi, Miss.

Other new officers for 1947 are: First vice-president, Helen Martin, special representative, publicity department, of the Missouri Pacific, St. Louis, Mo.; second vice-president, Harold T. Freed, managing editor, Norfolk & Western Magazine, Roanoke, Va.; and secretary-treasurer, Clifford G. Massoth, assistant editor of the Illinois Central Magazine, Chicago.

Historians to Award Centennial Scrolls

A celebration of its silver anniversary by the Railway Locomotive Historical Society will include the presentation of centennial service scrolls to the Lehigh Valley, the Michigan Central and the Pennsylvania. The ceremonies will be held at the University Club, New York, on December 11. Speakers of the evening will be Col. Robert S. Henry, assistant to the president, Association of American Railroads, Charles E. Fisher, national president of the society, and Lucius Beebe, author.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago 80, Ill.

AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS.—E. P. Soebbing, 1450 Railway Exchange Bldg., St. Louis 1, Mo. Annual meeting, October 8-10, 1947, Houston, Tex.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York 6, N. Y.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill.

AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, 1103 Cleveland St., Evanston, Ill. Annual meeting, January 17-18, 1947.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September, 1947.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York 6, N. Y.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—W. J. Walsh, B. & O. R. R., Baltimore 1, Md.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in coopcration with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 18-20, 1947, Palmer House, Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—Virginia Tanner, Baltimore & Ohio Magazine, Room 1202, B. & O. Bldg., Baltimore 1, Md.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. P. Nye, Tower Bldg., Washington 5, D. C.

AMERICAN SOCIETY FOR TESTING MATERIALS.—R. J. Painter, Asst. Secretary, 1916 Race St., Philadelphia 3, Pa. Annual meeting, June 16-20, 1947, Chalfonte-Haddon Hall, Atlantic City, N. J.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York 18, N. Y.

Railroad Division.—E. L. Woodward, Railway Mechanical Engineer, 105 W. Adams St., Chicago 3, Ill.

AMERICAN TRANSIT ASSOCIATION.—A. W. Baker, 292 Madison Ave., New York 17, N. Y.

AMERICAN WOOD-PRESERVERS' ASSOCIATION. — H. L. Dawson 1427 Eye St., N. W., Washing-

ton 5, D. C. Annual meeting, April 22-24, 1947, Multnomah Hotel, Portland, Ore.

ASSOCIATED TRAFFIC CLUBS OF AMERICA, INC.—R. A. Ellison, Cincinnati Chamber of Commerce, 1203 C. of C. Bldg., Cincinnati 2, O. Annual meeting, October 6-8, 1947, Lord Baltimore Hotel, Baltimore, Md.

ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.—H. S. Whited, 5th & T Sts., N. E., Washington 2, D. C.

ASSOCIATION OF AMERICAN RAILROADS. — H. J. Forster, Transportation Bldg., Washington 6, D. C.

Operations and Maintenance Department.—Clark Hungerford, Vice-President, Transportation Bldg., Washington 6, D. C.

Operating-Transportation Division. — L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.

Operating Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.

Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5, Ill.

Communications Section.—W. A. Fairbanks, 30 Vesey St., New York 7, N. Y.

Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York 17, N. Y.

Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5, Ill.

Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.

Protective Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.

Safety Section. — J. C. Caviston, 30 Vesey St., New York 7, N. Y.

Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.

Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 18-20, 1947, Palmer House, Chicago, Ill.

Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.

Signal Section.—R. H. C. Balliet, 30 Vesey St., New York 7, N. Y.

Mechanical Division.—Arthur C. Browning, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, June 23-28, 1947, Convention Hall, Atlantic City, N. J.

Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago 5, Ill.

Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Bldg., Washington 6, D. C. Annual meeting, June, 1947, Convention Hall, Atlantic City, N. J.

Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, April 15-17, 1947, Hotel Statler, St. Louis, Mo.

Motor Transport Division. — George M. Campbell, Transportation Bldg., Washington 6, D. C.

Car Service Division.—E. W. Coughlin, (Assistant to Chairman), Transportation Bldg., Washington 6, D. C.

Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington 6, D. C.

Accounting Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.

Treasury Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.

Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington 6, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Alton R. R., 340 W. Harrison St., Chicago 7, Ill. Annual meeting, May 7-9, 1947, Hotel Ambassador, Atlantic City, N. J.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—E. C. Gunther, Duff-Norton Mfg. Co., 122 S. Michigan Ave., Chicago 3, Ill.

CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcil Ave., N. D. G., Montreal 28, Que. Regular meetings second Monday of each month, except June, July and August, Mount Royal Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis 3, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago 31, Ill. Annual meeting, September 15-18, 1947, Hotel Sherman, Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—W. E. Angier, chief A. A. R. clerk, C. B. & Q. R. R. Co., 547 W. Jackson Blvd., Chicago 6, Ill. Regular meetings, second Monday of each month, except June, July and August.

CENTRAL RAILWAY CLUB OF BUFFALO. — R. E. Mann, 1840-42 Hotel Statler, McKinley Square, Buffalo 5, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

CHICAGO LUNCHEON CLUB OF MILITARY RAILWAY SERVICE VETERANS. — Col. R. O. Jensen, Schiller Park, Ill. Luncheon, second Wednesday of each month, Chicago Traffic Club, Palmer House, Chicago, Ill.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. J. Hawthorne, Union Railroad, East Pittsburgh, Pa.

EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York 7, N. Y. Regular meetings, second Friday of January, February (Annual Dinner), March, April, May, October and November, 29 W. 39th St., New York, N. Y.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker Street, North Little Rock, Ark. Annual meeting, September 15-18, 1947, Hotel Sherman, Chicago, Ill.

MASTER BOILER MAKERS' ASSOCIATION. — A. F. Stiglmeier, 29 Parkwood St., Albany 3, N. Y. Annual meeting September 15-18, 1947, Hotel Sherman, Chicago, Ill.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington 25, D. C. Annual meeting, July 14-18, 1947, Boston, Mass.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—F. J. Armstrong, U. S. Radiator Company, Detroit, Mich.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—Edward F. Lacey, Suite 450, Munsey Bldg., Washington 4, D. C.

NATIONAL RAILWAY APPLIANCES ASSOCIATION. — C. H. White, Room 1826, 208 S. La Salle St., Chicago 4, Ill. Meeting and exhibit, March 17-20, 1947. The Coliseum, Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston 11, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Vendome, Boston, Mass.

NEW YORK RAILROAD CLUB. — D. W. Pye, 30 Church St., New York 7, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y. Annual dinner, December 12, 1946, Hotel Commodore, New York, N. Y.

NORTHWEST CARMEN'S ASSOCIATION. — E. N. Myers, Minnesota Transfer Ry., 1434 Iowa Ave., St. Paul 4, Minn. Regular meetings, first Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.

PACIFIC RAILWAY CLUB. — William S. Wollner, P. O. Box 458, San Rafael, Cal. Regular meetings, second Thursday of each alternate month at Palace Hotel, San Francisco, Cal., and Hotel Biltmore, Los Angeles, Calif.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago 3, Illinois.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago 6, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago 4, Ill. Annual meeting, September 15-18, 1947, Hotel Sherman, Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Exhibit in conjunction with meetings of A. A. R. Mechanical Division and Purchases and Stores Division, June 23-28, 1947, Convention Hall, Atlantic City, N. J.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with Communications Section, of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 610 Shell Bldg., St. Louis, Mo. Annual meeting, September 23-25, 1947, Arlington Hotel, Hot Springs, Ark.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September, 1947.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with A. A. R. Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga., Savannah, Ga. Annual meeting, January 23, 1947, Atlanta, Ga.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto 2, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago 5, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 225 Bidwell Ave., Westerleigh, Staten Island 2, N. Y.

WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.

THE two large mills of Southern Pine at Diboll and Pineland, Texas, are doing everything possible to fill your orders for the items listed above. Your inquiries for railroad lumber items are invited.

Southern Pine Lumber Company

Mills: Diboll and Pineland, Texas
Sales Office: Texarkana, U. S. A.

Freight Operating Statistics of Large Steam Railways—Selected

Region, road, and year	Miles of road operated	Train-miles	Locomotive-miles: Principal and helper	Locomotive-miles: Light	Car-miles: Loaded (*thousands*)	Car-miles: Per cent loaded	Ton-miles (*thousands*): Gross excl. locos. & tenders	Ton-miles (*thousands*): Net-rev. and non-rev.	Road locos. on line: Serviceable: Unstored	Road locos. on line: Serviceable: Stored	Road locos. on line: B. O.	Road locos. on line: Per cent B. O.
New England Region:												
Boston & Albany 1946	362	148,884	165,830	26,578	3,526	64.2	222,002	88,664	62	..	26	29.5
1945	362	160,473	177,734	23,533	3,538	66.7	227,816	99,304	60	..	28	31.8
Boston & Maine 1946	1,750	330,187	338,839	12,142	12,103	71.2	735,839	320,411	104	18	17	12.2
1945	1,777	330,827	344,081	15,625	12,498	70.0	788,629	355,316	123	1	21	14.5
N. Y., New H. & Hartf.† 1946	1,820	400,596	547,813	44,355	15,840	70.6	926,175	399,507	205	10	52	23.0
1945	1,815	417,310	574,861	51,377	16,028	71.5	951,242	423,829	209	27	36	16.2
Great Lakes Region:												
Delaware & Hudson 1946	846	299,994	363,947	35,658	12,765	67.5	918,323	491,334	119	65	21	10.2
1945	846	284,433	347,570	35,261	12,087	66.4	869,036	457,772	118	67	33	15.1
Del., Lack. & Western 1946	971	331,087	377,126	44,064	14,175	70.6	914,839	418,894	113	28	30	17.5
1945	971	352,167	398,980	49,177	14,924	69.8	989,409	466,005	122	35	48	23.4
Erie 1946	2,242	826,584	882,941	75,448	40,552	65.4	2,671,444	1,118,206	286	35	67	17.3
1945	2,243	781,561	824,159	64,258	37,439	68.1	2,396,801	1,033,964	297	35	61	15.5
Grand Trunk Western 1946	972	290,243	298,757	2,637	9,927	67.0	629,596	268,309	69	..	7	9.2
1945	1,026	263,315	270,192	1,911	7,974	69.0	510,775	232,561	65	1	12	15.4
Lehigh Valley 1946	1,242	322,052	358,247	60,330	14,994	72.3	992,292	496,333	118	18	33	19.5
1945	1,246	377,789	419,780	62,546	16,539	66.6	1,162,429	583,895	131	27	11	6.5
New York Central 1946	10,328	3,367,932	3,595,263	234,439	128,485	63.8	8,712,735	3,971,106	1,029	44	321	23.0
1945	10,331	3,293,790	3,539,707	231,690	121,259	64.2	8,376,649	3,924,090	1,064	65	250	18.1
New York, Chi. & St. L. ... 1946	1,656	631,928	638,313	7,990	26,450	69.0	1,672,008	733,868	142	5	33	18.3
1945	1,656	652,049	665,965	8,282	26,408	70.5	1,667,687	757,616	152	23	26	12.9
Pere Marquette 1946	1,913	408,021	418,846	9,959	13,771	67.6	907,417	409,599	125	4	30	18.9
1945	1,915	404,005	421,472	12,197	14,004	68.5	919,448	436,987	129	7	25	15.5
Pitts. & Lake Erie 1946	229	99,670	100,690	102	4,085	67.9	336,299	199,560	35	4	14	26.4
1945	229	91,300	92,304	56	3,729	64.9	314,232	183,806	37	..	13	26.0
Wabash 1946	2,381	665,467	687,747	18,269	24,061	72.5	1,498,699	669,078	162	9	37	17.8
1945	2,381	680,700	700,592	16,476	23,857	71.7	1,510,812	690,017	160	2	49	23.2
Central Eastern Region:												
Baltimore & Ohio 1946	6,103	2,161,644	2,673,651	296,350	75,613	65.3	5,456,368	2,723,837	829	7	315	27.4
1945	6,095	2,242,428	2,791,572	309,682	78,925	64.2	5,778,523	2,912,885	901	16	260	22.1
Central of New Jersey† 1946	419	100,816	113,061	33,563	4,360	69.4	280,290	146,060	49	2	27	34.6
1945	654	190,468	219,965	44,848	7,158	65.8	508,676	269,579	103	17	32	21.1
Central of Pennsylvania 1946	230	74,582	87,485	17,938	2,751	67.0	202,063	108,534	43	2	25	35.7
1945	.....	.....	.....	.....	.....	...	.....	.....	..	..	..	...
Chicago & Eastern Ill. 1946	910	197,226	199,108	4,209	5,778	69.1	387,169	191,328	57	1	20	25.6
1945	912	259,544	261,871	5,550	6,995	64.8	476,994	223,819	69	4	6	7.6
Elgin, Joliet & Eastern 1946	391	120,869	215,957	3,686	3,778	67.1	287,580	154,034	46	2	16	25.0
1945	392	106,605	111,607	3,363	3,088	66.5	235,725	137,020	47	7	20	27.0
Long Island 1946	372	49,435	51,415	16,695	695	57.0	47,788	18,381	37	..	7	15.9
1945	372	47,761	49,460	14,656	672	54.0	46,996	16,388	51	..	3	5.6
Pennsylvania System 1946	10,033	4,310,516	5,011,143	660,409	171,288	65.9	12,048,989	5,997,933	1,960	1	263	11.8
1945	10,024	4,036,509	4,711,231	680,210	156,689	64.1	11,340,058	5,596,337	1,961	93	172	7.7
Reading 1946	1,361	541,521	601,470	69,414	18,491	66.6	1,405,329	778,004	253	23	50	15.3
1945	1,365	514,212	570,209	68,775	17,214	64.9	1,317,002	720,574	263	27	42	12.7
Pocahontas Region:												
Chesapeake & Ohio 1946	3,063	1,285,534	1,374,709	72,092	62,453	57.2	5,415,535	3,131,488	466	1	61	11.6
1945	3,040	1,068,198	1,144,366	50,632	49,249	57.7	4,207,677	2,410,127	449	5	65	12.5
Norfolk & Western 1946	2,139	793,730	846,440	59,164	38,064	58.7	3,314,262	1,822,643	256	45	19	5.9
1945	2,139	683,293	727,106	53,937	32,165	60.3	2,716,161	1,478,540	235	51	20	6.5
Southern Region:												
Atlantic Coast Line 1946	5,554	892,917	907,447	14,935	23,761	70.0	1,514,226	708,333	366	51	33	7.3
1945	5,557	933,709	946,986	12,619	23,642	66.2	1,548,033	711,665	401	6	31	7.1
Central of Georgia† 1946	1,783	306,381	312,577	5,926	7,604	70.0	508,403	232,703	88	..	10	10.2
1945	1,783	311,479	317,807	6,071	7,508	69.4	498,975	233,162	95	..	7	6.9
Gulf, Mobile & Ohio 1946	1,931	299,610	360,213	2,966	10,902	74.0	698,144	337,325	112	13	11	8.1
1945	1,931	316,473	403,439	3,461	11,381	73.0	729,058	351,297	102	2	11	9.6
Illinois Central Railroad Company 1946	6,582	1,499,177	1,511,995	56,303	58,067	67.1	3,881,771	1,841,812	591	12	93	13.4
1945	6,605	1,503,546	1,529,567	50,749	55,481	63.5	3,848,893	1,796,384	623	29	53	7.5
Louisville & Nashville 1946	4,750	1,557,938	1,692,898	47,425	41,305	63.9	2,963,251	1,533,761	388	19	73	15.2
1945	4,745	1,483,961	1,611,796	41,861	37,930	63.7	2,689,635	1,361,610	401	17	64	13.3
Seaboard Air Line 1946	4,139	732,545	764,269	14,150	21,689	71.2	1,377,589	634,908	249	19	68	20.2
1945	4,157	734,983	766,927	18,491	21,562	68.8	1,391,482	632,478	257	30	46	13.8
Southern 1946	6,450	2,178,143	2,218,346	37,804	50,499	70.4	3,226,010	1,483,651	612	1	102	14.3
1945	6,471	1,970,252	2,000,823	34,684	45,420	70.5	2,853,153	1,318,628	610	3	105	14.6
Northwestern Region:												
Chi. & North Western 1946	8,062	1,182,617	1,229,606	32,224	39,038	67.1	2,632,975	1,112,583	365	2	140	27.6
1945	8,062	1,144,827	1,194,742	27,417	36,902	66.7	2,569,397	1,162,413	390	15	106	20.7
Chicago Great Western 1946	1,445	277,254	280,357	10,658	8,794	69.2	567,188	244,175	67	..	11	14.1
1945	1,445	275,243	279,389	10,271	8,795	71.3	571,241	255,130	75	..	7	8.5
Chi., Milw., St. P. & Pac. .. 1946	10,725	1,484,823	1,578,537	65,656	52,107	67.6	3,442,553	1,579,854	466	53	85	14.1
1945	10,723	1,567,090	1,670,877	100,118	53,926	64.6	3,727,540	1,721,542	518	18	74	12.1
Chi., St. P., Minneap. & Om. 1946	1,606	221,315	238,467	14,154	5,916	72.6	391,248	181,660	80	..	40	33.3
1945	1,606	222,275	245,257	14,468	6,133	73.3	407,764	197,763	89	9	36	26.9
Duluth, Missabe & Iron Range 1946	546	165,694	166,609	1,457	8,861	51.7	810,608	496,070	50	..	..	...
1945	546	171,894	172,841	1,492	9,440	51.1	869,148	531,305	47	..	1	2.1
Great Northern 1946	8,236	1,067,287	1,070,852	49,236	40,988	63.4	3,025,659	1,474,555	352	58	83	16.8
1945	8,275	1,219,270	1,220,207	55,930	51,243	66.1	3,717,813	1,845,807	410	23	48	10.0
Minneap., St. P. & S. St. M. 1946	4,181	475,503	486,473	10,029	13,803	65.4	941,921	445,032	122	..	11	8.3
1945	4,259	470,729	483,476	10,249	12,782	61.4	917,035	424,858	126	1	15	10.6
Northern Pacific 1946	6,624	942,562	1,002,011	62,904	36,250	68.6	2,461,898	1,147,409	373	20	40	9.2
1945	6,577	1,044,746	1,116,053	82,490	43,453	69.6	2,970,734	1,428,700	385	6	55	12.3
Central Western Region:												
Alton† 1946	915	197,344	198,953	478	6,158	73.4	399,560	184,515	61	22	23	21.7
1945	915	253,827	266,599	820	6,554	70.4	433,769	217,112	72	1	8	9.9
Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.) 1946	13,085	2,977,068	3,157,783	179,273	112,907	72.0	7,041,469	2,908,447	750	59	147	15.4
1945	13,115	3,567,695	3,772,552	179,703	121,265	60.6	8,558,807	3,379,417	908	2	131	12.6
Chi., Burl. & Quincy 1946	8,671	1,437,739	1,491,297	52,965	53,965	63.0	3,786,177	1,711,551	443	39	72	13.0
1945	8,768	1,441,855	1,521,246	63,710	55,692	64.7	3,915,495	1,840,031	440	..	78	15.1
Chi., Rock I. & Pac.† 1946	7,615	1,314,086	1,344,299	19,149	40,657	65.0	2,731,046	1,216,985	333	15	90	20.5
1945	7,716	1,438,762	1,473,204	17,096	44,515	67.9	2,925,201	1,335,095	368	..	86	18.9
Denver & R. G. Wn.† 1946	2,386	426,566	472,225	64,240	12,637	73.2	854,874	395,025	166	13	28	13.5
1945	2,386	492,632	553,581	88,805	17,643	75.2	1,097,349	508,037	180	7	35	15.8
Southern Pacific Company ... 1946	8,171	2,427,389	2,733,605	462,905	96,910	70.3	6,245,149	2,598,571	792	1	184	18.8
1945	8,178	2,296,898	2,629,533	410,129	97,228	67.1	6,357,137	2,546,456	780	..	169	17.8
Union Pacific 1946	9,775	3,016,292	3,149,865	234,706	110,328	65.5	7,283,306	2,980,891	715	65	110	12.4
1945	9,779	3,338,718	3,544,417	300,471	126,689	68.0	8,174,240	3,582,710	820	40	86	9.1
Southwestern Region:												
Mo.-Kans.-Texas Lines 1946	3,241	540,057	551,588	9,869	15,674	68.2	995,779	440,873	123	..	43	25.9
1945	3,241	631,456	650,639	12,676	17,564	65.6	1,148,037	513,342	146	..	19	11.5
Missouri Pacific† 1946	7,053	1,466,585	1,527,272	38,727	48,180	67.5	3,234,911	1,455,519	424	5	75	14.9
1945	7,056	1,575,906	1,653,783	44,193	54,653	64.3	3,767,444	1,699,578	454	..	73	13.9
Texas & Pacific 1946	1,871	369,095	369,095	6,558	11,579	64.8	786,821	323,557	105	46	5	3.2
1945	1,871	491,331	491,331	10,318	14,006	61.7	992,595	403,861	142	7	13	8.0
St. Louis-San Francisco† 1946	4,615	1,006,159	1,052,784	11,503	24,471	66.9	1,626,141	736,839	307	3	30	8.8
1945	4,615	1,109,340	1,178,058	16,341	26,652	63.3	1,838,517	823,256	315	..	33	9.5
St. Louis-San Fran. & Texas 1946	156	36,641	38,020	34	638	72.6	42,749	19,933	10	..	1	9.1
1945	161	35,836	38,389	5	569	66.3	37,650	15,856	9	..	..	...
St. Louis Southwestern Lines† 1946	1,568	346,041	348,919	4,891	13,951	81.1	799,450	357,366	85	27	24	17.6
1945	1,600	383,975	386,840	5,233	13,990	71.7	853,004	381,305	107	10	30	20.4
Texas & New Orleans 1946	4,321	961,684	962,154	15,875	26,093	72.5	1,677,436	760,551	218	1	42	16.1
1945	4,325	931,828	932,826	22,283	25,008	66.3	1,648,592	715,647	233	1	44	15.8

† Report of trustee or trustees.

Items for the Month of August 1946 Compared with August 1945

Region, road, and year	Freight cars on line: Home	Foreign	Total	Per Cent B. O.	G.t.m. per train-hr. excl.locos. and tenders	G.t.m. per train-mi. excl.locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd. car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Coal lb. per 1000 g.t.m. inc. loco.	Mi. per loco. per day
New England Region:													
Boston & Albany	1946 314	5,057	5,371	.7	22,334	1,495	597	25.1	517	32.0	7,901	184	**78.7**
	1945 235	5,112	5,347	.4	23,351	1,433	625	28.1	572	30.6	8,849	196	**80.4**
Boston & Maine	**1946** 1,811	11,200	13,011	**3.1**	32,423	2,233	972	26.5	755	40.1	5,906	104	**88.2**
	1945 1,927	11,644	13,571	**1.3**	36,812	2,391	1,077	28.4	867	43.6	6,450	100	**82.5**
N. Y., New H. & Hartf.†	1946 1,826	18,892	20,718	**2.8**	31,212	2,318	1,000	25.2	577	32.4	7,081	92	**77.5**
	1945 1,964	18,029	19,993	**4.4**	32,315	2,285	1,018	26.4	681	36.0	7,533	83	**79.7**
Great Lakes Region:													
Delaware & Hudson	1946 2,303	7,231	9,534	**2.7**	51,824	3,078	1,647	38.5	1,691	65.0	18,735	101	**65.8**
	1945 3,653	6,568	10,221	**3.8**	52,816	3,075	1,620	37.9	1,479	58.8	17,455	100	**59.2**
Del., Lack. & Western	1946 4,073	12,600	16,673	**4.2**	42,281	2,807	1,285	29.6	768	36.8	13,916	108	**88.3**
	1945 5,231	10,797	16,028	**4.1**	43,078	2,839	1,337	31.2	901	41.3	15,481	104	**77.1**
Erie	1946 6,463	30,638	37,101	**2.1**	52,315	3,257	1,363	27.6	994	55.1	16,089	92	**87.3**
	1945 8,534	27,009	35,543	**4.2**	50,591	3,093	1,334	27.6	898	47.7	14,870	92	**79.8**
Grand Trunk Western	1946 3,963	10,152	14,115	**6.9**	42,731	2,184	931	27.0	621	34.3	8,904	84	**137.8**
	1945 2,686	7,719	10,405	**6.7**	38,979	1,953	889	29.2	718	35.7	7,312	85	**122.5**
Lehigh Valley	1946 5,642	13,663	19,305	**4.7**	51,917	3,195	1,598	33.1	831	34.8	12,891	100	**84.4**
	1945 6,615	18,148	24,763	**3.5**	52,211	3,189	1,602	35.3	780	33.2	15,117	96	**97.3**
New York Central	1946 44,185	105,809	149,994	**4.5**	40,469	2,623	1,195	30.9	854	43.3	12,403	95	**99.4**
	1945 42,581	95,427	138,008	**4.3**	41,040	2,581	1,209	32.4	929	44.7	12,253	102	**97.7**
New York, Chi. & St. L.	1946 2,229	13,102	15,331	**2.4**	50,578	2,664	1,169	27.7	1,513	79.1	14,295	80	**124.9**
	1945 2,179	12,946	15,125	**3.0**	48,867	2,567	1,166	28.7	1,578	78.0	14,758	84	**115.7**
Pere Marquette	1946 3,686	13,153	16,839	**3.9**	36,575	2,248	1,015	29.7	780	38.8	6,907	91	**93.2**
	1945 3,428	9,483	12,911	**4.3**	40,545	2,312	1,099	31.2	1,124	52.6	7,361	83	**92.6**
Pitts. & Lake Erie	1946 2,184	9,284	11,468	**4.2**	52,156	3,379	2,005	48.9	563	17.0	28,111	92	**66.5**
	1945 2,806	10,147	12,953	**5.2**	51,286	3,451	2,019	49.3	431	13.5	25,892	71	**64.1**
Wabash	1946 5,292	15,337	20,629	**3.3**	43,750	2,278	1,017	27.8	1,031	51.2	9,065	104	**115.3**
	1945 6,032	12,373	18,405	**4.9**	43,878	2,242	1,024	28.9	1,178	56.8	9,348	103	**114.9**
Central Eastern Region:													
Baltimore & Ohio	1946 37,576	52,885	90,461	**5.1**	31,783	2,580	1,288	36.0	962	40.9	14,397	142	**85.8**
	1945 41,338	50,214	91,552	**5.0**	31,786	2,636	1,329	36.9	1,024	43.2	15,417	139	**88.1**
Central of New Jersey†	1946 1,283	9,351	10,634	**5.1**	34,849	2,888	1,505	33.5	357	15.4	11,245	133	**56.9**
	1945 3,462	14,059	17,521	**7.4**	32,984	2,777	1,472	37.7	484	19.5	13,297	111	**73.7**
Central of Pennsylvania	1946 1,234	4,253	5,487	**7.6**	28,965	2,755	1,480	39.5	638	24.1	15,222	135	**54.7**
	1945	....	....	..	....	....	....	....	....	....	....	....	....
Chicago & Eastern Ill.	1946 1,783	4,290	6,073	**6.8**	34,562	2,004	990	33.1	999	43.7	6,782	111	**88.1**
	1945 2,145	4,123	6,268	**5.8**	35,006	1,901	892	32.0	1,137	54.8	7,917	111	**109.7**
Elgin, Joliet & Eastern	1946 7,426	8,552	15,978	**1.8**	19,892	2,531	1,355	40.8	303	11.1	12,708	120	**93.5**
	1945 8,226	5,648	13,874	**2.7**	19,629	2,338	1,359	44.4	319	10.8	11,276	131	**70.1**
Long Island	1946 50	6,046	6,096	**.4**	7,740	997	383	26.4	100	6.6	1,594	316	**76.6**
	1945 19	5,132	5,151	**.5**	7,613	1,010	352	24.4	95	7.2	1,421	253	**58.0**
Pennsylvania System	1946 115,528	131,492	247,020	**8.6**	36,884	2,894	1,441	35.0	775	33.6	19,285	119	**89.3**
	1945 115,836	119,735	235,571	**5.7**	39,736	2,899	1,431	35.7	771	33.7	18,009	118	**84.8**
Reading	1946 8,812	24,362	33,174	**2.5**	33,551	2,604	1,442	42.1	768	27.4	18,440	99	**77.2**
	1945 11,577	22,865	34,442	**2.3**	33,210	2,565	1,403	41.9	689	25.3	17,029	108	**72.0**
Pocahontas Region:													
Chesapeake & Ohio	1946 37,713	21,705	59,418	**1.5**	59,640	4,289	2,480	50.1	1,647	57.4	32,979	71	**96.2**
	1945 37,096	18,481	55,577	**2.1**	58,129	3,987	2,284	48.9	1,392	49.3	25,574	72	**80.7**
Norfolk & Western	1946 23,595	7,783	31,378	**.8**	65,039	4,226	2,324	47.9	1,813	64.5	27,487	82	**97.3**
	1945 28,561	7,109	35,670	**1.8**	63,845	4,031	2,194	46.0	1,325	47.7	22,298	82	**90.1**
Southern Region:													
Atlantic Coast Line	1946 8,096	18,045	26,141	**3.0**	26,925	1,705	797	29.8	846	40.5	4,114	116	**70.9**
	1945 7,873	16,993	24,866	**1.9**	27,183	1,671	768	30.1	907	45.5	4,131	121	**73.8**
Central of Georgia†	1946 1,472	6,235	7,707	**1.2**	29,789	1,664	762	30.6	941	43.9	4,210	129	**113.3**
	1945 1,796	6,631	8,427	**1.2**	29,252	1,608	751	31.1	883	41.0	4,218	131	**108.4**
Gulf, Mobile & Ohio	1946 1,422	5,860	7,282	**1.5**	40,858	2,338	1,130	30.9	1,467	64.1	5,635	100	**93.2**
	1945 1,885	8,340	10,225	**.8**	39,556	2,310	1,113	30.9	1,204	53.5	5,869	107	**121.0**
Illinois Central Railroad Company	1946 15,961	36,982	52,943	**1.1**	44,010	2,653	1,259	31.7	1,141	53.7	9,027	113	**77.6**
	1945 20,782	32,187	52,969	**1.0**	42,617	2,634	1,229	32.4	1,075	52.3	8,773	112	**75.8**
Louisville & Nashville	1946 23,986	15,974	39,960	**3.9**	29,589	1,902	984	37.1	1,163	49.0	10,416	117	**121.1**
	1945 29,552	15,713	45,265	**5.9**	29,128	1,813	918	35.9	965	42.2	9,257	121	**115.3**
Seaboard Air Line	1946 5,441	17,193	22,634	**2.0**	32,356	1,916	883	29.3	916	43.9	4,948	119	**83.8**
	1945 5,671	15,503	21,174	**1.7**	33,148	1,921	873	29.3	952	47.2	4,908	116	**84.9**
Southern	1946 13,933	34,417	48,350	**4.2**	25,124	1,503	691	29.4	983	47.5	7,420	137	**106.5**
	1945 13,338	32,735	46,073	**3.3**	24,974	1,471	680	29.0	917	44.8	6,573	140	**96.1**
Northwestern Region:													
Chi. & North Western	1946 19,955	40,501	60,456	**3.0**	34,908	2,344	991	28.5	629	32.9	4,452	118	**87.1**
	1945 20,647	34,475	55,122	**4.0**	34,524	2,338	1,058	31.5	698	33.2	4,651	114	**85.7**
Chicago Great Western	1946 1,086	4,666	5,752	**6.1**	35,656	2,047	881	27.8	1,384	72.1	5,451	118	**126.8**
	1945 1,069	4,473	5,542	**4.0**	36,084	2,084	931	29.0	1,481	71.6	5,695	116	**120.4**
Chi., Milw., St. P. & Pac.	1946 19,828	37,870	57,698	**1.8**	36,996	2,342	1,075	30.3	921	44.9	4,752	112	**95.5**
	1945 22,612	37,025	59,637	**2.0**	37,985	2,404	1,100	31.9	945	45.8	5,179	111	**100.9**
Chi., St. P., Minneap. & Om.	1946 1,011	7,188	8,199	**4.9**	22,992	1,852	860	30.7	725	32.5	3,649	111	**73.1**
	1945 916	7,140	8,056	**7.7**	24,360	1,884	914	32.2	841	35.6	3,972	101	**67.7**
Duluth, Missabe & Iron Range	1946 13,862	416	14,278	**2.2**	89,068	5,037	3,083	56.0	1,116	38.6	29,308	63	**123.5**
	1945 14,449	350	14,799	**2.7**	89,946	5,237	3,201	56.3	1,151	40.0	31,390	59	**138.6**
Great Northern	1946 19,320	24,366	43,686	**3.6**	44,755	2,865	1,396	36.0	1,167	51.1	5,775	87	**80.1**
	1945 20,765	24,841	45,606	**2.6**	46,648	3,074	1,526	36.0	1,245	52.3	7,195	86	**93.7**
Minneap., St. P. & S. St. M.	1946 4,670	8,513	13,183	**4.8**	33,704	2,006	948	32.2	1,080	51.2	3,434	88	**129.9**
	1945 5,665	9,218	14,883	**3.2**	34,022	1,978	916	33.2	1,011	49.6	3,218	87	**115.7**
Northern Pacific	1946 15,028	19,706	34,734	**3.6**	42,148	2,633	1,227	31.7	1,074	49.5	5,588	127	**86.8**
	1945 15,457	23,860	39,317	**4.0**	42,241	2,873	1,382	32.9	1,194	52.2	7,007	122	**93.9**
Central Western Region:													
Alton†	1946 1,467	6,534	8,001	**1.4**	34,942	2,046	945	30.0	749	34.1	6,505	100	**65.8**
	1945 2,321	6,459	8,780	**1.5**	37,285	1,728	865	33.1	826	35.4	7,654	115	**115.1**
Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1946 38,753	44,579	83,332	**4.7**	45,815	2,377	982	25.8	1,121	60.4	7,170	105	**118.0**
	1945 40,462	48,125	88,587	**4.4**	41,858	2,418	955	27.9	1,130	66.9	8,312	111	**128.1**
Chi., Burl. & Quincy	1946 16,071	29,792	45,863	**2.5**	43,971	2,647	1,197	31.7	1,222	61.2	6,367	96	**96.9**
	1945 18,477	26,555	45,032	**2.9**	42,220	2,729	1,282	33.0	1,307	61.2	6,770	95	**106.4**
Chi., Rock I. & Pac.†	1946 9,100	25,138	34,238	**4.4**	37,441	2,092	932	29.9	1,114	57.2	5,155	97	**103.4**
	1945 11,079	22,857	33,936	**3.6**	35,301	2,053	937	30.0	1,242	61.0	5,582	105	**110.5**
Denver & R. G. Wn.†	1946 6,603	7,945	14,548	**5.6**	33,940	2,020	933	31.3	925	40.5	5,341	156	**88.6**
	1945 7,642	8,323	15,965	**5.3**	35,229	2,246	1,040	28.8	984	45.4	6,869	163	**100.0**
Southern Pacific Company	1946 22,842	49,828	72,670	**2.8**	38,411	2,611	1,087	26.8	1,131	60.0	10,259	101	**112.4**
	1945 23,567	66,100	89,667	**2.5**	35,903	2,791	1,118	26.2	909	51.8	10,044	100	**110.9**
Union Pacific	1946 22,865	42,530	65,395	**2.9**	49,490	2,453	1,004	27.0	1,528	86.4	9,837	125	**127.4**
	1945 26,586	50,915	77,501	**3.8**	45,941	2,485	1,089	28.3	1,467	76.3	11,818	120	**133.8**
Southwestern Region:													
Mo.-Kans.-Texas Lines	1946 1,713	8,994	10,707	**.8**	34,629	1,853	820	28.1	1,356	70.6	4,388	78	**114.6**
	1945 1,359	7,940	9,299	**.2**	33,458	1,828	817	29.2	1,756	91.5	5,109	82	**135.3**
Missouri Pacific†	1946 14,989	30,094	45,083	**1.3**	38,349	2,219	998	30.2	1,067	52.3	6,657	103	**105.7**
	1945 13,572	25,196	38,768	**1.6**	38,998	2,409	1,087	31.1	1,374	68.7	7,770	104	**109.4**
Texas & Pacific	1946 1,232	6,922	8,154	**2.5**	43,502	2,155	886	27.9	1,331	73.5	5,578	87	**82.7**
	1945 1,654	7,600	9,254	**1.8**	37,942	2,075	844	28.8	1,376	77.3	6,963	93	**107.8**
St. Louis-San Francisco†	1946 3,941	15,451	19,392	**1.9**	32,247	1,624	736	30.1	1,199	59.5	5,150	121	**106.4**
	1945 6,804	15,461	22,265	**1.8**	31,781	1,667	746	30.9	1,235	63.2	5,754	127	**115.8**
St. Louis-San Fran. & Texas	1946	239	239	**3.8**	22,370	1,178	549	31.2	2,094	92.4	4,122	116	**118.5**
	1945	308	308	**3.9**	20,198	1,051	442	27.9	1,552	84.0	3,177	119	**148.1**
St. Louis Southwestern Lines†	1946 1,119	5,471	6,590	**3.9**	45,022	2,314	1,034	25.6	1,788	86.1	7,352	76	**92.2**
	1945 1,025	5,726	6,751	**1.5**	37,625	2,224	994	27.3	1,683	86.1	7,688	81	**95.0**
Texas & New Orleans	1946 3,233	16,559	19,792	**3.8**	33,368	1,758	797	29.1	1,231	58.2	5,678	86	**125.0**
	1945 3,673	17,443	21,116	**3.7**	32,193	1,784	775	28.6	1,064	56.1	5,338	89	**114.0**

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

Handling conditions vary for each particular plant. Your own problem should be presented to an experienced material handling engineer. However, the following example outlines a simple method for determining the savings possible with an electric industrial truck. Let us assume a hypothetical plant with the simple problem of transporting daily 180 tons of material 200 feet from stockrooms to processing machines. Without power trucks this would require 10 truckers, each making 10 round trips per hour, or 80 trips per day, carrying 450 lbs. of material per load.

COST OF MATERIAL HANDLING

Per ton—based on 180 tons per day

In addition to these savings, Baker Trucks reduce warehouse rental charges by tiering, contribute to plant safety, speed production and material movement, and perform many other operations that reduce plant overhead.

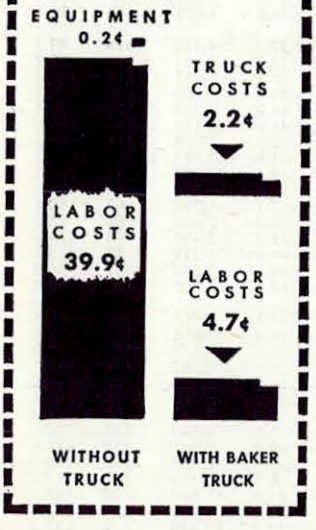


TABLE I—*Handling Costs Without Electric Truck*

Based on 180 tons per day	*Cost per day*	*Cost per ton*
Labor (85¢ per hour)	$68.00	$0.378
Social Security Taxes	2.72	0.015
Workmen's Compensation	1.00	0.006
Hand Truck Depreciation	0.30	0.002
Total	$72.02	$0.401

In order to mechanize handling operations, the following equipment would be required:

TABLE II—*Cost of Equipment for Mechanizing*

Fork Lift Truck 2000-lb. capacity	$4,100.00
Battery	600.00
Charging Equipment	840.00
200 pallets	700.00
Total	$6,240.00

The truck, handling one-ton pallet loads of material, making 24 round trips per hour, could transport the 180 tons in 7½ hours.

TABLE III—*Annual Expense—Truck Operation*

Depreciation—Truck at 10%	$410.00
Battery at 20%	120.00
Charging equipment at 6⅔%	56.00
Pallets at 20%	140.00
Tires	100.00
Repair and Maintenance—Truck	164.00
Battery	24.00
Charging Equipment	33.60
Replacement of damaged pallets	70.00
Electricity	82.00
Insurance	10.00
Total annual expense	$1,209.60
Expense per day	4.03

TABLE IV—*Handling Costs—With Electric Truck*

Based on 180 tons per day	*Cost per day*	*Cost per ton*
Labor (Driver—$1 per hour)	$8.00	$0.044
Social Security Taxes	0.32	0.002
Workmen's Compensation	0.16	0.001
Truck Expense	4.03	0.022
Total	$12.51	$0.069

TABLE V—*Savings With Electric Truck*

Savings Per Ton	$ 0.332
Savings Per Day (Handling 180 tons)	59.51
Savings Per Year (300 days)	17,853.00
Per Cent Reduction in handling costs	83%
Annual earnings on investment	286%

While this example is obviously oversimplified, Baker Material Handling Engineers are prepared to show you how similar savings can be made on handling operations in your plant.

BAKER INDUSTRIAL TRUCK DIVISION *of The Baker-Raulang Company*
2175 WEST 25TH STREET • CLEVELAND, OHIO
In Canada: Railway and Power Engineering Corporation, Ltd.

Baker INDUSTRIAL TRUCKS

(adv. p. 58) 987 & 988

Current Publications

Trade Publications

Spray Equipment Catalog. 44 pages. Published by the Eclipse Air Brush Company, 432 Park avenue, Newark 7, N. J. Free.

This catalog describes the complete line of low-pressure spray equipment made by this company. It includes information on all Eclipse equipment and accessories now available and features a series of tests by means of which the user may judge the value of the various types.

Articles in Periodicals

Future of Air Freight in Commodity Transportation, by Richard H. Rush. Domestic Commerce, November, 1946, pp. 12-16.

Outlines the causes of the rapid growth of air transportation of freight. Shippers to whom the time element is important make use of air carriers if their commodities lend themselves to that type of transportation. Features to be considered are length of haul and type of service.

The Railway Labor Act and Labor Disputes, by H. R. Northrup. The American Economic Review, June, 1946, pp. 324-343.

"This article surveys the more important railway dispute cases which have occurred since 1941 and draws certain conclusions from the manner in which they were handled."

Pamphlets

Railway Quiz. 56 pages, illustrations. issued by the Public Relations Section, Department of Railways, New South Wales, 19 York St., Sydney, New South Wales, Australia.

This book contains the kind of questions that are usually asked about the railways of New South Wales, and the answers to them are set out in non-technical terms. Various sections cover history, track, traffic, locomotives and rolling stock and finance.

Train Your Salesmen Now, by Bigelow, Kent, Willard & Company, 500 Fifth Ave., New York, N. Y. 22 pages. Free.

This firm of management engineers and accountants has issued this little booklet to aid management in developing sales training programs. It discusses the need for such programs, the elements that go to make up an effective program, and includes a number of questions which can be used as yardsticks in checking programs in use at present.

Transport Coordination in the United States, by P. Harvey Middleton. 72 pages, maps. Published by the Railway Business Association, First National Bank Building, Chicago 3, Ill. Free.

This report describes the kind of transport coordination which is permitted under the regulatory laws now in force, and present abstracts of important statements regarding the coordination problem as it affects both carrier and user interests. Brief descriptions of coordinated transport services now in operation by a number of rail lines are also included.

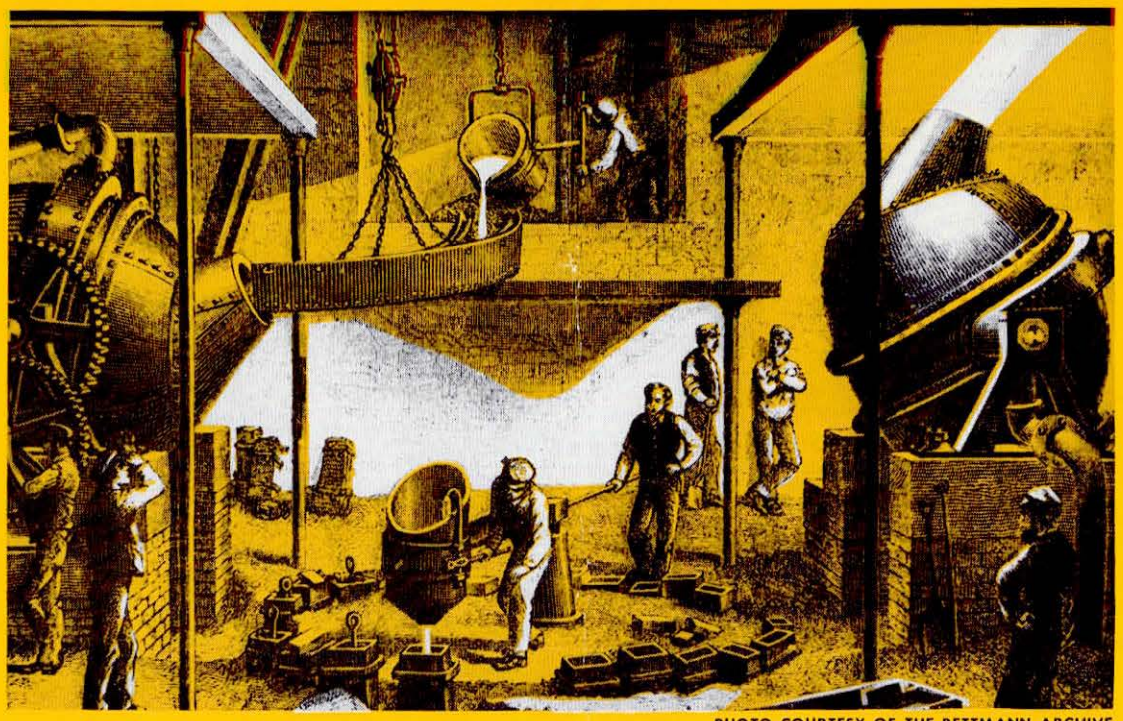


PHOTO COURTESY OF THE BETTMANN ARCHIVE

FROM A METAL-MASTER'S "FAMILY ALBUM"

When Bessemer Departments were beginning...

"STANDARD" operated one of the first in the country

When this busy day in an early Bessemer department was sketched, a converter had already been operating at Standard Steel for eight years. With the exception of an experimental plant at Wyandotte, Mich., Standard's installation was the third in the United States. The building which housed the equipment is still standing at Burnham, and still in daily use.

Throughout the years, Standard has continued to pioneer. Today's melting capacity is 160,000 net tons annually, from five open hearth furnaces. All furnaces are constructed with acid linings, as the acid open hearth process was early found to yield the highest quality steel . . . and nothing else will do for Standard products.

When you "Standardize on Standard" for your castings and forgings, 151 years of experience serve you. The Baldwin Locomotive Works, Standard Steel Works Division, Burnham, Penna., U. S. A. Offices: Philadelphia, New York, Chicago, St. Louis, Washington, Boston, San Francisco, Cleveland, Detroit, Pittsburgh, Houston, Birmingham, Norfolk.

BLW THE BALDWIN GROUP **BALDWIN**

FORGINGS AND CASTINGS

"STANDARDIZE ON STANDARD" FOR YOUR FORGINGS AND CASTINGS

Baldwin comes through with another diesel-electric development—a 2000-hp. *double-ended* locomotive for commuter service.

This locomotive which was built for the Central Railroad Company of New Jersey is now in service and will soon be joined by others of the same type. This marks the first time that any railroad has used such powerful diesel-electric locomotives on regular commuter trains.

Locomotives of this type—*that can be operated in either direction without the necessity of turning at terminals*—may be the answer to some of your motive power problems. Our representative will be pleased to discuss it with you.

The Baldwin Locomotive Works, Philadelphia 42, Pa., U. S. A. Offices: Philadelphia, New York, Chicago, St. Louis, Washington, Boston, San Francisco, Cleveland, Detroit, Pittsburgh, Houston, Birmingham, Norfolk, Seattle.

BALDWIN

LOCOMOTIVES

new 2000-hp. diesel-electric locomotive for commuter service

BLW
THE BALDWIN GROUP

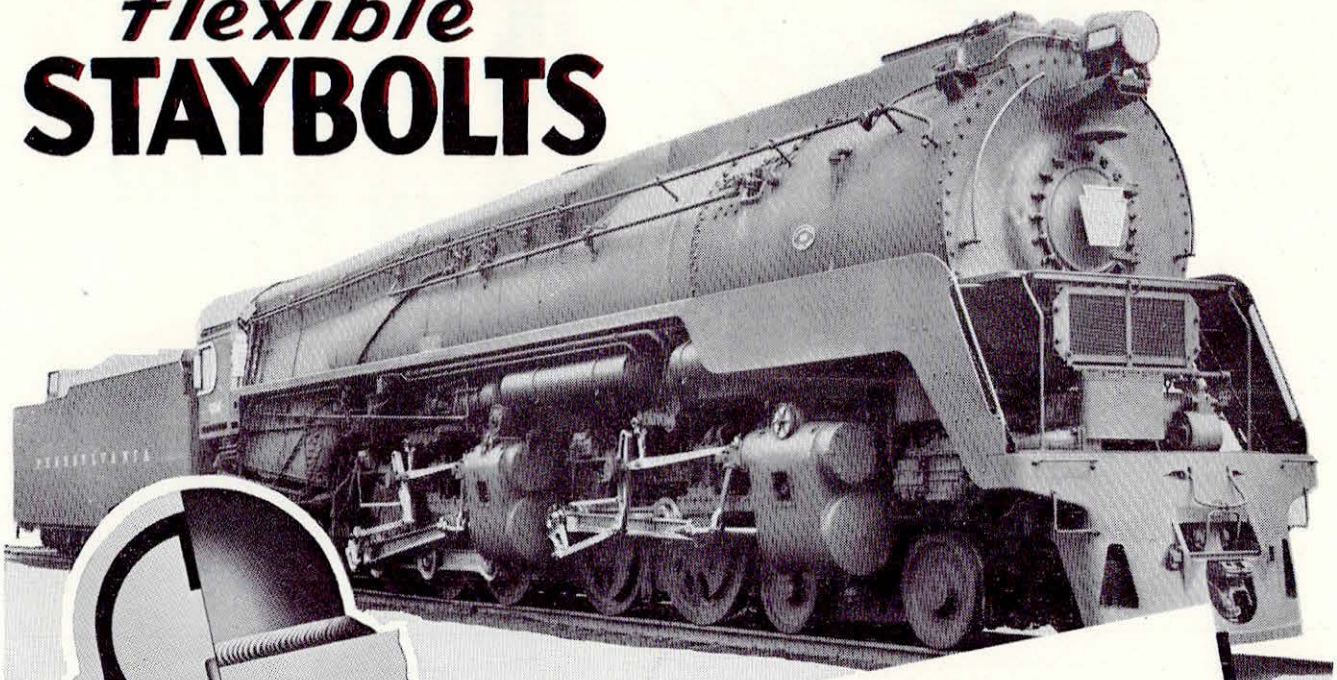
Another Baldwin *Order*

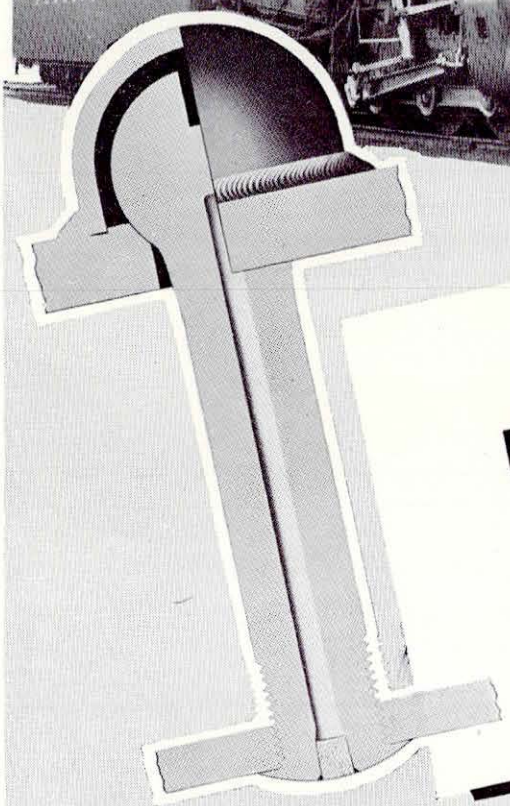
22 more 3000 h.p. Diesel Road Engines just ordered—plus previous orders for locomotives of 1500, 2000 and 3000 h.p.—brings the total of SKF-equipped Baldwin-built Diesel Road Engines to 42.

SKF Bearings have been used successfully on the traction motors, generators, exciters and other auxiliary equipment as well as on the axle journals for the last 12 years. 6162

SKF INDUSTRIES, INC., PHILA. 32, PA.

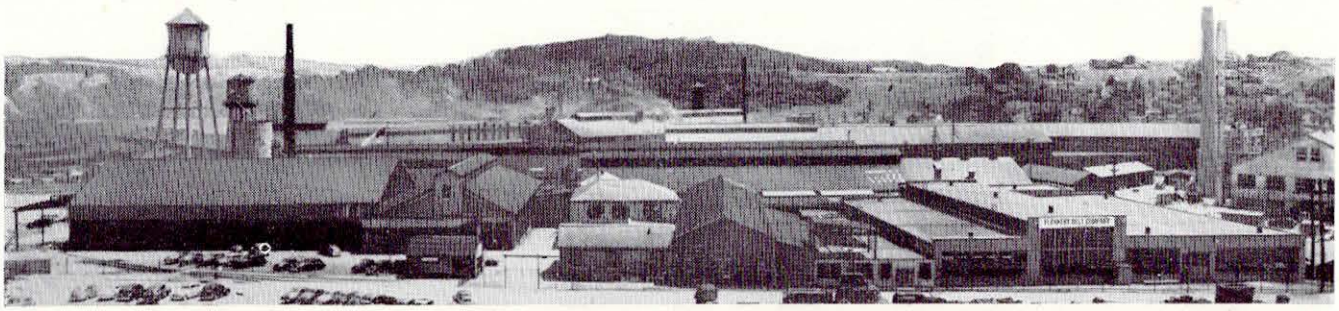
HOLLOW *flexible* STAYBOLTS





ON THE PENNSYLVANIA'S Q-2 FREIGHT LOCOMOTIVES

★ ★ ★

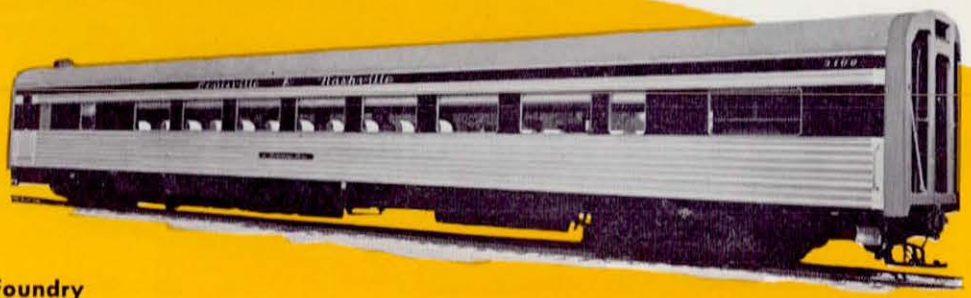


FLANNERY BOLT COMPANY

BRIDGEVILLE ★ PENNSYLVANIA

Outstanding IN ADVANTAGES . . .

Leading IN DESIGN . . . .



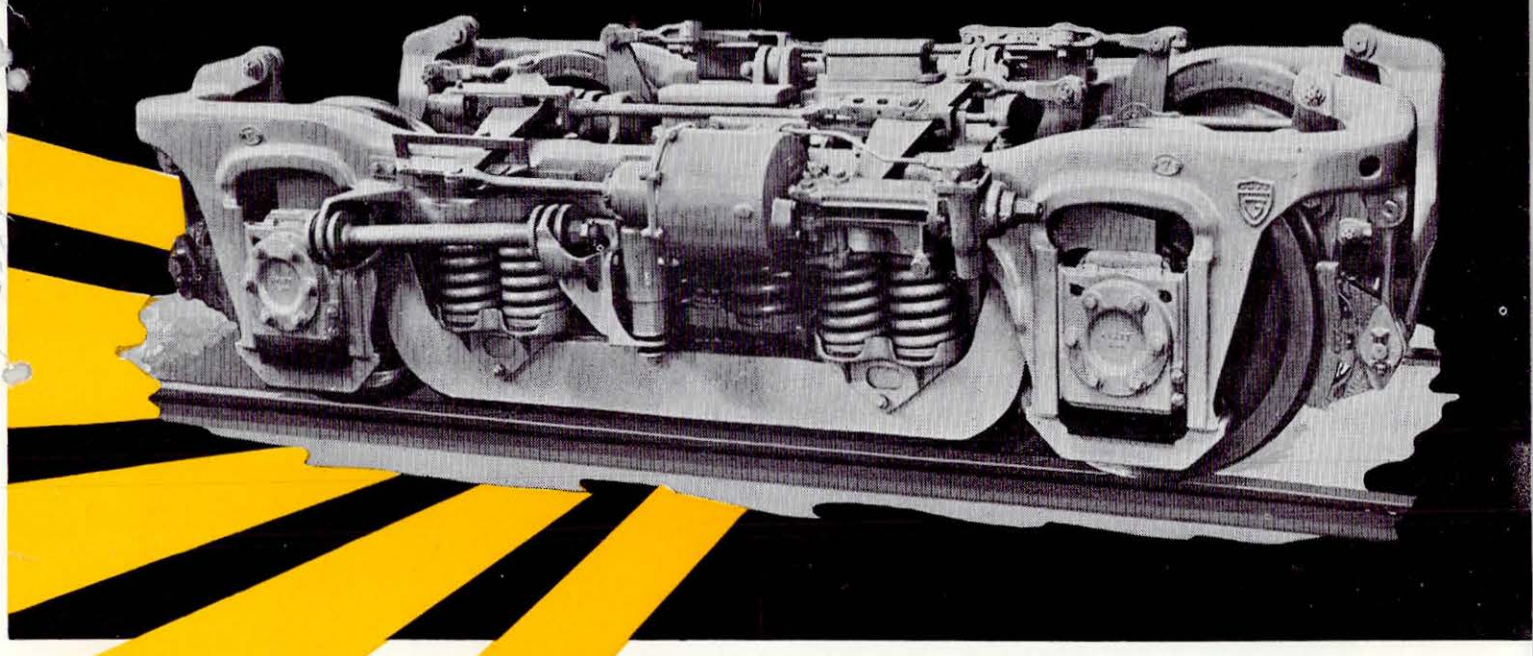
Built by American Car & Foundry
for Louisville & Nashville R. R.

Built by The Budd Co.
for Atlantic Coast Line.

Built by Pullman-Standard for
Chicago & North Western Ry.

GENERAL

COMMONWEALTH
4-Wheel
Passenger Car Trucks



ANOTHER example of *General Steel Leadership* is this 4-wheel passenger car truck—a development that is the result of over 40 years of intensive engineering and manufacturing experience.

Adaptable to all types of passenger cars, this *COMMONWEALTH* 4-Wheel Truck has won the widest acceptance, *and its standardization of design* offers important economies in production and assembly of all parts.

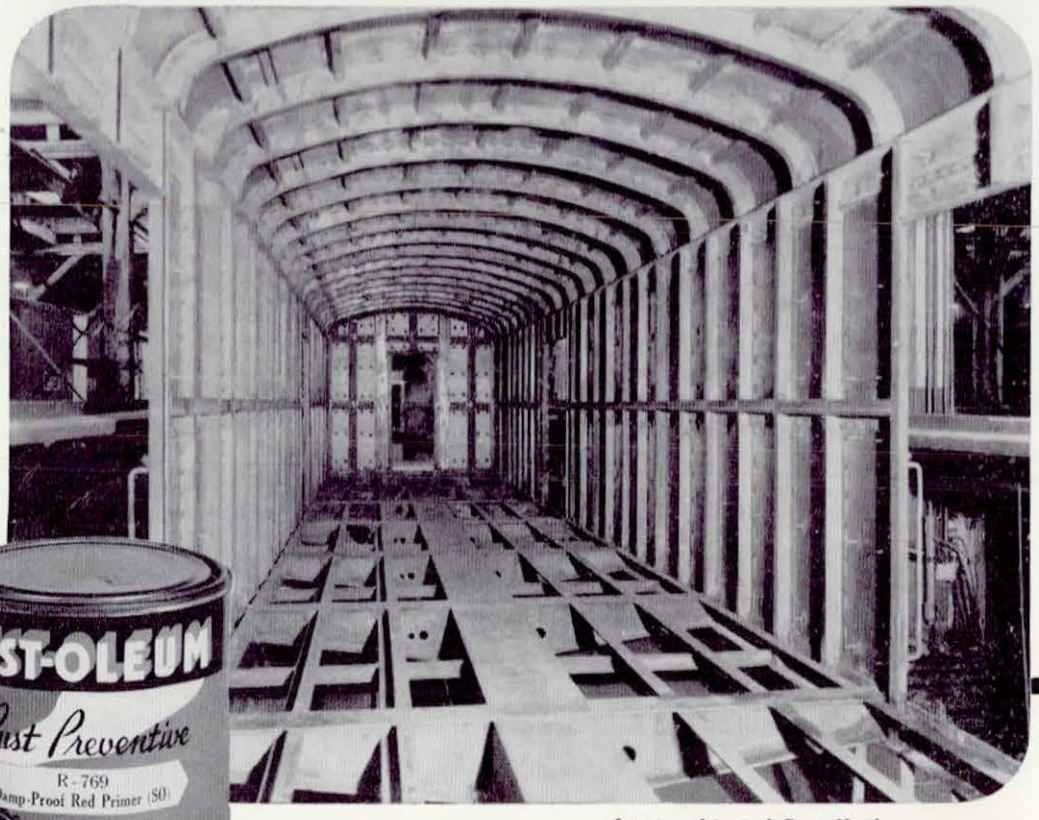
This modern design includes a *COMMONWEALTH* one-piece alloy cast steel truck frame, bolster and spring plank, providing great strength with lighter weight, unusually long service life and low maintenance.

Many refinements in design assure the best possible riding qualities at all speeds, with greater passenger comfort and safety.

STEEL CASTINGS

EDDYSTONE, PA. • GRANITE CITY, ILL.

THIS IS HOW THE GREAT NORTHERN STOPS HIDDEN RUST WITH RUST-OLEUM



Interior of typical Great Northern express car in which Rust-Oleum gives lasting protection to hidden surfaces normally subject to rust.

CUTS COSTS AND SAVES LABOR 3 WAYS!

- **IT CUTS PREPARATION TIME!** No sand-blasting or chemical cleaners are necessary. Simply wirebrush to remove rust scale, dirt, blisters, etc.
- **IT GOES ON FASTER!** Rust-Oleum saves 25% of application time and covers 30% more area than ordinary material.
- **IT LASTS LONGER!** Rust-Oleum lasts two to ten times longer on most jobs. This means extra savings.

In building and re-conditioning this express car, the Great Northern Railroad coated all hidden metal surfaces with Rust-Oleum—under-frames, posts, liners, inside sheathing, etc. This assures positive protection against acids, water, condensation caused by quick temperature changes and drippings from perishable ladings.

Rust-Oleum provides an air-tight, pliable, water-proof coating that lasts for years . . . It does not blister, crack or peel. This means longer service for every car. Repair and maintenance costs are cut sharply. Rust-Oleum is unequalled as an effective, money-saving rust preventive.

Get the facts—NOW! Write today for Catalog 145 for recommended applications.

RUST-OLEUM CORPORATION

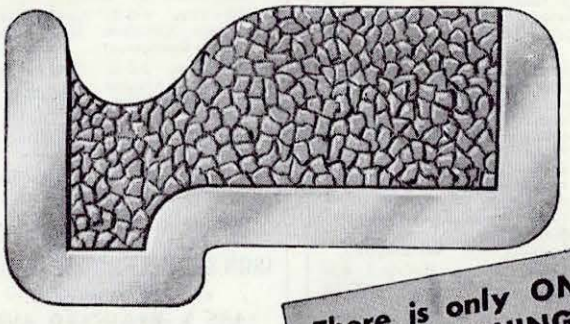
2415 Oakton Street **Evanston, Illinois**

"DON'T PULL THAT WHEEL!"

Why Feed the Scrap Pile and Crowd the Shop??

Our Form #5 Trues the Whole Wheel—Flats and Flanges Alike — IN SERVICE!

One large terminal switcher reports, "Whenever wheel trouble appears, I put Form #5 Wheel Truing Brake Shoes* on my switchers and keep them on until the shoes wear out. That way, I never have to worry about high flanges and flats."



FORM 5 SHOE

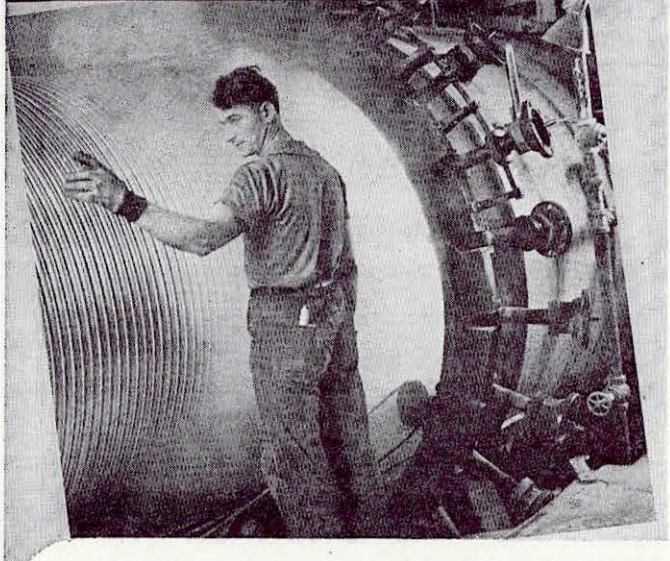
* Reg. U. S. Pat. Office

There is only ONE WHEEL TRUING BRAKE SHOE*

WHEEL TRUING BRAKE SHOE CO.

DETROIT Established 1898 MICHIGAN

short facts about long-lived cable



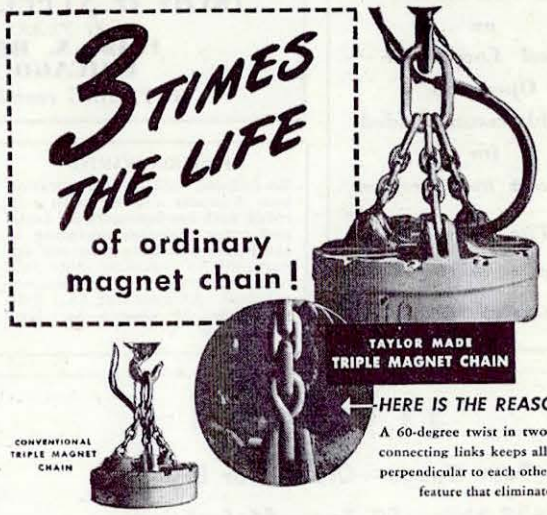
• All wires and cables insulated by Okonite's strip process are pressure vulcanized in a continuous metal mold. The Okonite Company, Passaic, N. J.

look for the single ridge

OKONITE SINCE 1878

insulated wires and cables for every railroad use

3 TIMES THE LIFE of ordinary magnet chain!



HERE IS THE REASON WHY!

A 60-degree twist in two of the three connecting links keeps all links of legs perpendicular to each other—a patented feature that eliminates wear.

TAYLOR MADE Triple Magnet Alloy Chain stays on the job two to three times longer than conventional magnet chain. This improved chain eliminates twisting and kinking...the cause of excessive wear in ordinary magnet chain. It is built of TAYLOR MADE Alloy Steel Chain to give greater resistance to shock...grain growth and work-hardness—eliminating periodic heat treatment.

Such safety and economy has never before been available to users of magnet chain. This T M chain is a real contribution to material handling. Write the factory for more details.

S. G. TAYLOR CHAIN COMPANY
Dept. R-12, Box 509, HAMMOND, IND.

TAYLOR MADE Chain

"THE BEST BY TEST SINCE 1873."

GET TOGETHER DEPARTMENT

RAILROAD EDUCATIONAL SERVICE

For 45 years the Railroad Department — International Correspondence Schools — has been training ambitious railroad men the technique of their work. Nearly 300 railroads have agreements with the International Correspondence Schools to instruct their employees who are interested in technical training at reduced rates.

Courses In:
Railroad Apprentice Training
Air Brakes
Locomotive Firemen
Locomotive Engineers
Car and Locomotive Shop Work
Traffic Management
Accounting—Rate Clerk
Maintenance of Way
Transportation Salesmanship
Signal Work
Telephony and Telegraphy

We Specialize in Railroad Apprentice Technical Training Courses Covering the Work Done by Each Craft.

Free Booklet on Request

INTERNATIONAL CORRESPONDENCE SCHOOLS
Railroad Department
Box 8816 SCRANTON, PA.

LOCOMOTIVES

2—44-Ton, Diesel-Electric, 300 H.P. Tractive Effort 26,100 lbs. Standard Gauge.
1—38-Ton, 0-4-0 Coal Fired Steam, 36-Inch Gauge.
2—85-Ton Electric Industrial 600 v. D.C., General Electric B + B — 150/150.
4—140 Ton 2-8-2 steam locomotives, T/E 48,570 lbs. I.C.C. condition. Oil fired.
1—65-Ton, 0-6-0, Coal-Fired Steam Switcher, New 1923, Good Condition.
1—80-Ton, 0-6-0, Coal-Fired Steam Switcher, New 1942, Good Condition.
Other Locomotives Too!
1—15-Ton Whitcomb Gasoline, Standard Gauge.
1—12-Ton Whitcomb Gasoline, Standard Gauge.

Send us your Inquiry

IRON & STEEL PRODUCTS, Inc.
41 years' experience
13486 S. BRAINARD AVE.
CHICAGO 33, ILLINOIS
"ANYTHING containing IRON or STEEL"

FREIGHT CARS

2—Gondola, All Steel, 57½-Ton.
30—Gondola, All Steel, 50-Ton.
60—Gondola, Composite, 50-ton.
77—Hopper, Twin, All Steel, 50-Ton.
21—Hopper, Side Discharge, All Steel, 70-Ton.
7—Box, 50-Ton, 50-Ft., Automobile, All Steel.
24—Box, 40-Ton, 50-Ft., Single Sheathed.
12—Box, 40-Ton, 40-Ft., Single Sheathed.
2—Caboose, 8-Wheel, Steel Underframe.
50—Tank, 8000 Gal., Non-Coiled, Class III.
23—Flat Cars, 50-Ton, 43-Ft.
4—Flat Cars, 40-Ton, 50-Ft.
1—Flat Car, 50-Ton, 40-Ft.
2—Dump, 20 Cu. Yd. Automatic Air, Western.
6—Dump, 20 Cu. Yd., Automatic Air, K & J.
17—Dump, 30 Cu. Yd., Clark Automatic Air

IRON & STEEL PRODUCTS, Inc.
13486 S. BRAINARD AVE.
CHICAGO 33, ILLINOIS
ANYTHING containing IRON or STEEL"

Robert W. Hunt Company
ENGINEERS
Inspection—Tests—Consultation
All Railway Equipment
Structures and Materials
General Office:
175 W. Jackson Boulevard
CHICAGO
New York-Pittsburgh-St. Louis

DE LEUW, CATHER & COMPANY
ENGINEERS
Railway Terminals and Yards
Bridges Shops & Structures
Tunnels Signaling and C.T.C.
Grade Separations
Transportation Problems
Industrial Plants
Plans and Supervision of Construction
20 North Wacker Dr., Chicago 6

90# TIE PLATES

500 Tons of good, serviceable used tie plates, ready for immediate shipment.
Address:
M. K. FRANK, 480 Lexington Ave., New York 17, N. Y.
Park Building, Pittsburgh, Pa.
Biltz Building, Reno, Nevada

SPECIAL OFFERING

Immediate Delivery

41—50-Ton, 40-Ft., All-Steel Gondola Cars. Built 1919-1921, some equipped with Type "A B" Air Brakes.
77—50-Ton, All-Steel Twin Hopper Cars.
These cars just released from revenue service.

IRON & STEEL PRODUCTS, Inc.
41 YEARS EXPERIENCE
13486 S. BRAINARD AVE.
CHICAGO 33, ILLINOIS
"ANYTHING containing IRON or STEEL"

USE
SPACE
HERE

Educational Services for RAILROAD MEN

Our New Service
on
Diesel Locomotive
Operation
is highly recommended
for
Engineers and Firemen

The Railway
Educational Bureau
Omaha 2, Nebraska

POSITION WANTED

Ex-railroad officer inaugurating own business dealing with railroads with headquarters St. Louis and other railroads operating in southwest will have time and opportunity to represent other railroad accounts. Correspondence solicited. Address Box 847, Railway Age, 30 Church St., New York 7, N. Y.

WANTED

Well established Railway Supply Company wishes to acquire a railway device in mechanical or track maintenance fields by outright purchase or on royalty basis. Address box 845, Railway Age, 30 Church St., New York 7, N. Y.

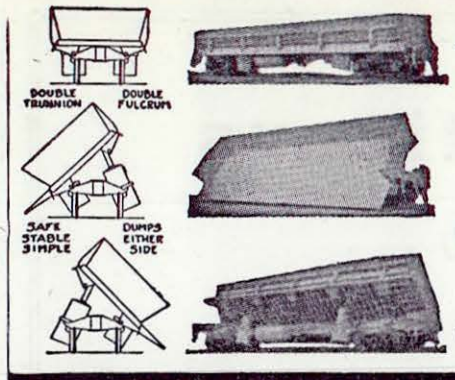
FLAT CARS

5 Foot Gauge—Crated for Export
1638 New—50 Ton—46 feet long
Immediate shipment—$2100.00 each
Location—Pacific Coast Area

Call *Wire* *Write*

Sam Cohen Equipment Co.
6432 Cass Avenue
Detroit 2, Michigan
Phone—Madison 5300

TAKE ADVANTAGE
OF SPACE
IN THE
GET TOGETHER
DEPARTMENT



AIR DUMP CARS

RAIL CARS
MINE CARS
AND
LOCOMOTIVES
AXLESS TRAINS
COMPLETE
HAULAGE SYSTEMS

DIFFERENTIAL STEEL CAR CO.
FINDLAY, OHIO

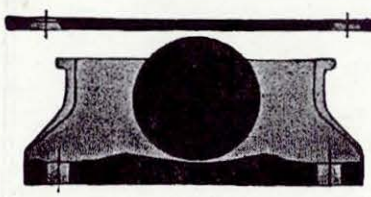
HYMAN-MICHAELS COMPANY
Relaying Rails ★★★ Dismantling
Used railroad equipment—cars—locomotives
Freight Car Replacement Parts
Complete stocks of guaranteed used freight car parts carried on hand by us at all times. Located conveniently for shipment to any part of country. Write — Phone — Wire — when interested in used Rails, Equipment, Cars, Car or Track Dismantling, or Car Parts.

Main Office
122 SOUTH MICHIGAN AVENUE
CHICAGO, ILLINOIS

Branches
New York, St. Louis — SERVICE
San Francisco, Los Angeles — QUALITY
Houston, Havana, Cuba — RELIABILITY

"GUNITE" CONCRETE
(CALLED "SHOTCRETE" BY RAILROADS)
DETAIL INFORMATION—SPECIFICATIONS ON REQUEST
GUNITE CONCRETE & CONSTRUCTION CO.
ENGINEERS CEMENT GUN SPECIALISTS CONTRACTORS
1301 Woodswether Road Kansas City 6, Missouri
District Branch Office—228 N. LaSalle, Chicago 1, Ill.

GOLD CAR HEATING SPECIALTIES OF QUALITY
STEAM — VAPOR — ELECTRIC
GOLD CAR HEATING & LIGHTING CO.
33-35TH STREET, BROOKLYN, N. Y.



STUCKI SIDE BEARINGS
Manufactured by
A. Stucki Co.
Oliver Bldg., Pittsburgh, Pa.
Canadian Representatives
The Holden Co., Ltd.
Montreal, Can.

CLEAR TRACK AHEAD . . .

...And You're Money Ahead

When you Standardize on EX-CELL-O Hardened and Ground Steel Pins and Bushings

A twofold saving is realized when you standardize on Ex-Cell-O pins and bushings. You save on reduced "down time" because Ex-Cell-O pins and bushings give many more miles of service. You save money because foundation parts last longer. Uniform hardening of Ex-Cell-O pins and bushings distributes wear evenly. Write today for Bulletin 32301 showing standard styles and sizes.

XLO
EX-CELL-O for PRECISION
RAILROAD DIVISION
EX-CELL-O CORPORATION
DETROIT 6, MICHIGAN
46—38

EX-CELL-O PINS AND BUSHINGS

Index to Advertisers

December 7, 1946

A

Air Reduction Sales Company 6
American Arch Company, Inc. 51
American Brake Shoe Company, Brake Shoe and Castings Division 16, 17
American Locomotive Company 20, 21
American Steel Foundries 27
Association of Manufacturers of Chilled Car Wheels, The ... 2

B

Baker Industrial Truck Division of The Baker-Raulang Company 58
Baldwin Locomotive Works, The 59, 60, 61
Bethlehem Steel Company 3

C

Caterpillar Tractor Co. 29
Classified Advertisements 68
Cohen Equipment Co., Sam 68
Corning Glass Works 10

D

Dayton Rubber Manufacturing Co., The 26
De Leuw, Cather & Company 68
Differential Steel Car Company 69

E

Electro-Motive Division, General Motors Corporation 48
Ex-Cell-O Corporation, Railroad Division 69

F

Firestone Company 43
Flannery Bolt Company 63
Franklin Railway Supply Company, Inc. 50
Frank, M. K. 68

G

General Electric Company 20, 21
General Railway Signal Company ..... Back Cover
General Steel Castings 64, 65
Get Together Department 68
Gold Car Heating & Lighting Co. 69
Graybar Electric Company 56
Gunite Concrete & Construction Co. 69

H

Holland Company 22
Hunt Company, Robert W. 68
Hunt-Spiller Mfg. Corporation 53
Hyman-Michaels Company 69

I

International Business Machines Corporation 19
International Correspondence Schools 68
Iron and Steel Products, Inc. 68

K

Koppers Company, Inc. 28

L

Lima Locomotive Works, Incorporated 49
Locomotive Finished Material Co., The 32

M

Magnus Metal Corporation 24

N

National Lead Company 11
National Malleable and Steel Castings Company 18

O

Ohio Locomotive Crane Co. 69
Okonite Company, The 67
Orton Crane & Shovel Co. 35
Otis Elevator Company 15

P

Pantasote Corporation of New Jersey, The 25
Philco Corporation, Storage Battery Division 30
Pittsburgh Steel Foundry Corp. 33
Pullman-Standard Car Manufacturing Company 4, 5

R

Railway Age 34
Railway Educational Bureau, The 68
Republic Steel Corporation 31
Rust-Oleum Corporation 66

S

Schaefer Equipment Company 7
Scullin Steel Co. 36
Shell Oil Company, Incorporated 37
SKF Industries, Inc. 62
Socony-Vacuum Oil Co., Inc. 8, 9
Southern Pine Lumber Company 57
Standard Steel Works Division of The Baldwin Locomotive Works 59
Steel Founders' Society 38
Stucki Co., A. 69
Superheater Company, The 52
Symington-Gould Corporation, The 71

T

Taylor Chain Company, S. C. 67
Timken Roller Bearing Company, The 14

U

Union Asbestos and Rubber Co. 12, 13
Union Switch & Signal Company 46, 54, 55

W

Waugh Equipment Company ..... 39 to 42 incl.
Westinghouse Air Brake Co. 44
Wheel Truing Brake Shoe Co. 67
Wine Railway Appliance Co., The ..... Front Cover

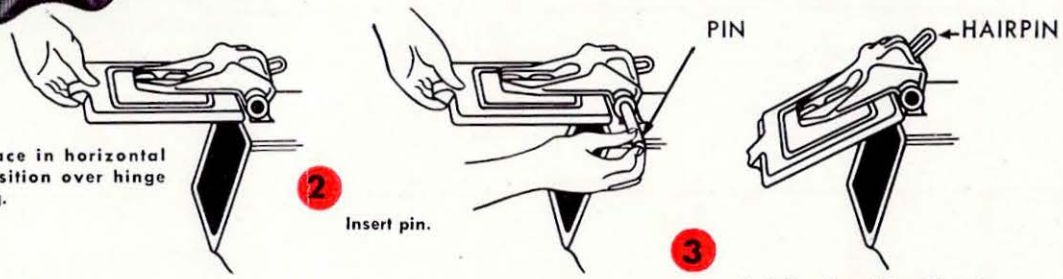
Y

Yale & Towne Manufacturing Co., The 23

EASILY, QUICKLY INSTALLED OR REMOVED

Symington COMPOSITE ARTICULATED JOURNAL BOX LID

HOW TO INSTALL THE SYMINGTON B-265 LID



1. Place in horizontal position over hinge lug.
2. Insert pin.
3. Partially close lid until spring tension is greatest. *Then* remove hairpin and close lid all the way—lid is installed! Simple. Easy. Quick.

Light Weight... Yet Sturdy

Tight Joint

Center Pressure

Full Articulation

The cast housing of this lid is so designed that the hinge pin cannot be removed . . . whether lid is open or closed . . . without the use of a hairpin or nail. Lid is quickly removed by reversing the above procedure.

For full details write for Bulletin J-306 describing the B-265 Lid.

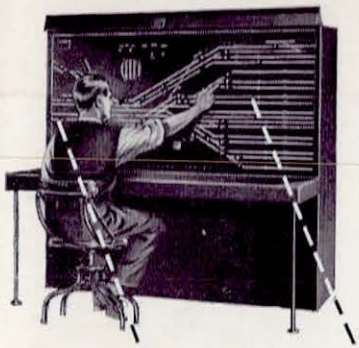
THE SYMINGTON-GOULD CORPORATION

Works: ROCHESTER & DEPEW, NEW YORK

New York • Chicago • St. Louis • Boston • San Francisco • *In Canada:* ADANAC SUPPLIES, LTD., Montreal, Que.

G·R·S NX automatically

SELECTS THE BEST ROUTE



NX ELECTRIC INTERLOCKING is particularly valuable in large terminals, with the many "possible" routes they present. With NX, route selection is entirely automatic; *and NX always selects the best available route.*

When the most direct route is in use, NX immediately selects the next best route. It may be the longest way around, but it is shortest in point of time. Once the machine has set up the route, switches are automatically thrown and signals cleared. Lights on the control board show the exact location and progress of every train in the interlocking.

With NX, you add greatly to the capacity of one operator to handle many train movements without confusion or fatigue. Peak traffic loads are handled with maximum co-ordination and freedom from errors that cause delays.

It may be that G-R-S NX is just the thing to relieve congestion and eliminate delays in your terminals. At any rate, G-R-S engineers will be glad to tell you just what you can expect. Call on them through our nearest district office.

General Railway Signal Company

ROCHESTER 2, N. Y. · NEW YORK 17 · CHICAGO 3 · ST. LOUIS 1